











# MONTHLY WEATHER REVIEW

BY

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TORONTO



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

JANUARY, 1912

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## TEMPERATURE.

### BRITISH COLUMBIA.

On Vancouver Island and along the Lower Fraser the mean temperature of January differed very little from average. But along the Upper Fraser and the Thompson River, as well as in the Okanagan Valley and the Kootenays, the month was from 6° to 8° colder than usual. Near the head-waters of the Fraser the temperature was almost continuously below zero for the first twelve days. In the Okanagan and Kootenay districts, although the daily minima were at many stations from 5° to 25° below zero during the same period, yet at some time during each day zero was exceeded. From the 22nd to the end of the month the weather was much milder, maximum temperatures exceeding 45° in several districts.

### THE WESTERN PROVINCES.

At Calgary the mean temperature was normal, but elsewhere in Alberta there was a negative departure from average of about 2°. During the first fifteen days temperatures below zero ranged from 5° to 57°, the coldest day being the 10th. The lowest temperatures occurred in the country about the Peace and Athabasca Rivers, although on the 10th and 11th, the minimum temperatures along the North Saskatchewan River were 50° below zero at Paken and 49° below at Ranfurly. A chinook wind raised the temperature during the night of the 15th to 53° at some points along the Red Deer River, but mild weather was not of general occurrence till after the 21st, from which date till the end of the month temperatures below zero were not registered in the basin of the Red Deer or in the country to the south of it. The highest temperature of the month was recorded at nearly all places on the 29th or 30th.

In Saskatchewan the range of difference from average was from 5° below to 13° below. Almost everywhere in this province the temperature was below zero on the first day of the month and remained below continuously for 15 days. During the remainder of the month, day temperatures generally exceeded 10°, but night temperatures which were below zero were of frequent occurrence. The lowest temperature of the month occurred on the 10th or 11th and was 50° below or lower. The highest temperature of the month occurred on the 30th, but did not exceed 43° at any place, nor 36° in the majority of instances.

In Manitoba temperature conditions were nearly the same as in Saskatchewan, but the range of difference from average was from 8° to 13° below. The coldest days of the month were the 10th and 11th, while the warmest were the last two.

## ONTARIO.

The greatest differences from average temperature occurred in the districts bordering on Lake Superior. In Algoma, Thunder Bay and Rainy River Districts the mean temperature of the month was from 14° to 18° below normal. In the counties bordering on Lakes St. Clair and Erie there was also a marked deviation from normal, amounting to about 15°. Throughout the remainder of Ontario the differences ranged from 8° to 12°. The actual mean daily temperatures which occurred in the Lake Superior districts were considerably lower than any which occurred in the remainder of the province, with the exception of those reported from the eastern counties and the Upper Ottawa River. The extreme minimum temperature of the month varied from 30° to 58° below zero in the northern districts, but in the southern counties was generally higher than 20° below. The month was one of the coldest on record in Ontario.

## QUEBEC.

Along the middle St. Lawrence and in the Lake St. John district temperatures were from 8° to 10° below normal; in the Abitibi region, where the weather of the month was similar to that which obtained in the Lake Superior districts, more than 12° below. In the Gulf counties, however, the weather was milder, differing from average by about 6°. At all places any distance from the river, temperatures of 40° below zero or lower, were registered on the 13th or 27th.

## THE MARITIME PROVINCES.

The mean daily temperature was from 1° to 7° lower than normal in the Maritime Provinces. The coldest periods were from the 7th to the 14th, and from the 20th to the 28th, when temperatures below zero occurred frequently.

*The highest and lowest temperatures recorded during the month of January, 1912, were:*

	HIGHEST.		LOWEST.
British Columbia .....	58.5° at Clayoquot on the 29th,	—45°	at Ft. St. James on the 11th.
Alberta .....	53° at Harmattan on the 15th,	—53°	at Ft. Vermilion on the 5th.
Saskatchewan .....	42.2° at Maple Creek on the 15th,	—55°	at several points.
Manitoba .....	33° at Aweme on the 30th,	—54°	at Le Pas on the 10th.
Ontario .....	42° at Grimsby and Cottam on the 1st,	—58°	at White River on the 6th.
Quebec .....	39.8° at Sherbrooke on the 19th,	—57°	at Manouan Crossing on the 27th.
New Brunswick .....	51° at Sussex on the 19th,	—31.5°	at Fredericton on the 27th.
Nova Scotia .....	51.9° at Wolfville on the 20th,	—25°	at Truro on the 26th.
P. E. Island .....	43° at Charlottetown on the 9th and 19th,	—15°	on the 27th.

## PRECIPITATION.

## BRITISH COLUMBIA.

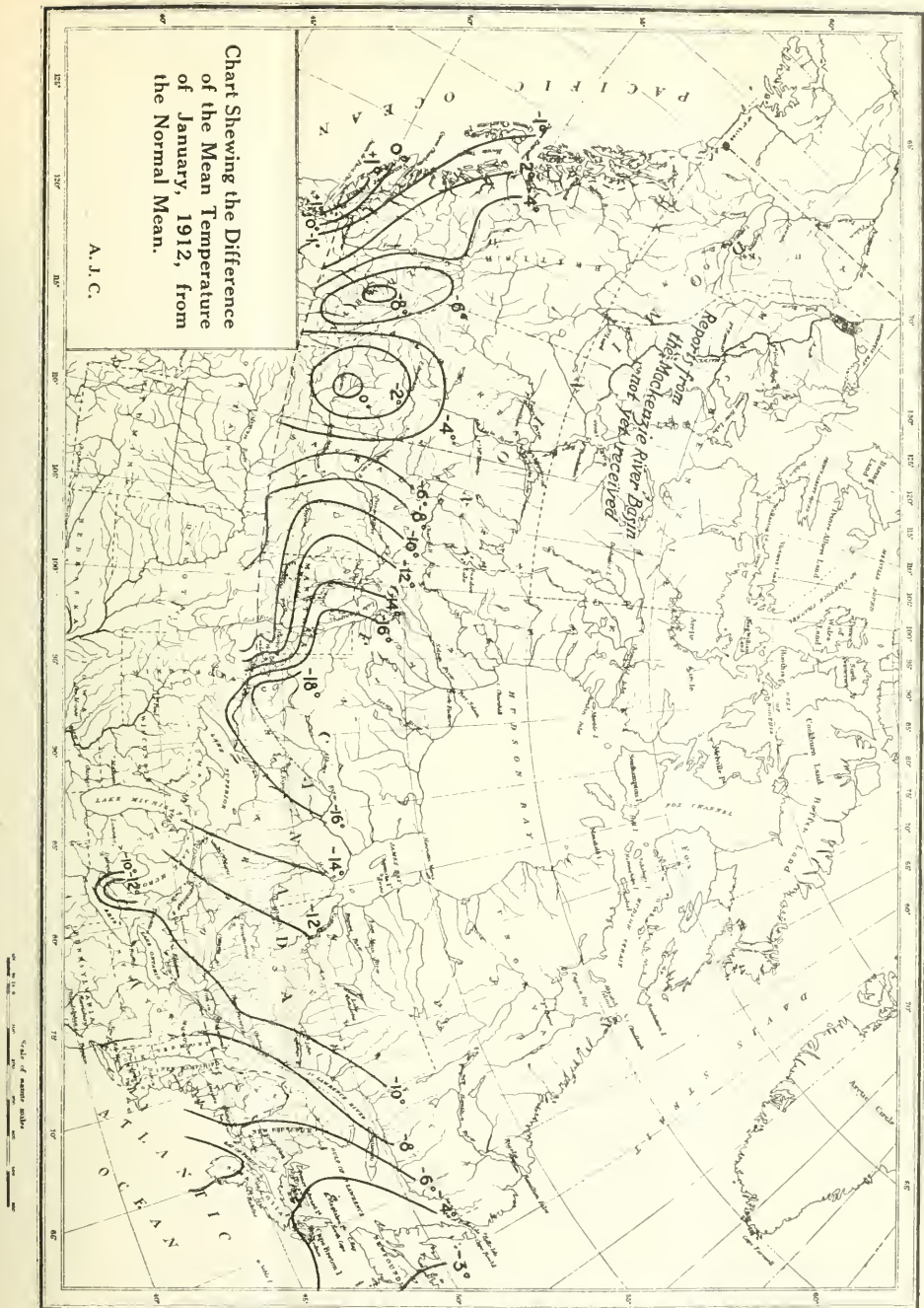
There was an excess over normal of one inch in the Lower Fraser valley, and a deficiency of about one inch in the Cariboo region; elsewhere in the province the differences from average were small.

## THE WESTERN PROVINCES.

Snow fell on from 3 to 10 days during the month and was generally in excess of average by a small amount, in Alberta. But in Saskatchewan and Manitoba there was a general deficiency equivalent to from 50 to 70 per cent. of the normal amount. In Manitoba snow was recorded in many districts on but one day.

Chart Shewing the Difference  
of the Mean Temperature  
of January, 1912, from  
the Normal Mean.

A. J. C.



## ONTARIO.

There was an excess of about 20 per cent. in the Georgian Bay counties, locally in the Lake Erie counties and along the Upper Ottawa river. Elsewhere in the province there was a deficiency.

## QUEBEC.

In southwestern Quebec the precipitation was nearly average, but along the Lower St. Lawrence there was an excess which at Father Point was 30 per cent. of the normal amount.

## THE MARITIME PROVINCES.

There was a deficiency of precipitation amounting to from 40 to 50 per cent. of the average in the greater part of New Brunswick, in southwestern Nova Scotia and Prince Edward Island. Over the greater part of Nova Scotia there was an excess of about 10 per cent.

## ATMOSPHERIC PRESSURE.

The mean value of the atmospheric pressure for January was in excess of the average over Northern British Columbia, and from Eastern Saskatchewan to Lake Superior; elsewhere in Canada the normal was not reached. Negative departures were more than a tenth of an inch over the Maritime Provinces and about half that amount over Ontario, Quebec and Southern British Columbia. In Eastern Saskatchewan and Manitoba the positive departure was generally about 0.04 of an inch.

## HIGH AREAS.

Eleven areas of high pressure were traced; five first appeared over or in close proximity to the Yukon Territory, two a little to the northward of Alberta, two to the northward of Manitoba and two on the coast of the Middle Pacific States. The general track of the centres of the areas was well to the southward of the Great Lakes, thence off the Atlantic coast and out to sea. The systems with few exceptions were of marked energy attended by very cold conditions, the result being that the weather of the month was extremely cold over nearly the whole continent.

## LOW AREAS.

Sixteen areas of low pressure were charted. Seven first appeared on the British Columbia coast, usually well to the northward, one in Northern Alberta, three on the North Pacific States coast, two in the Gulf of Mexico, two off the Carolina coast and one to the northward of Lake Superior.

The general track of the areas was either over or to the southward of the Great Lakes, thence to the Maritime Provinces and Newfoundland. Some of the systems were very pronounced, particularly during the first two decades and especially as they reached our Atlantic coast and Newfoundland, resulting in several exceptionally heavy gales over the latter districts.

## SNOW ON THE GROUND.

From Stewart, in far Northern British Columbia, 40 inches of snow were reported upon the ground at the close of the month. Rossland, in the West Kootenay, gave 38 inches as the depth of snow on the ground at the beginning of the third week, and reported excellent sleighing on the 31st. In the Okanagan Valley, however, a great part of the snow had disappeared. In Keewatin the snow covering exceeded 20 inches; in the Western Provinces, generally, the depth was from 2 to 8 inches, 20 to 30 inches of snow covered the ground in the Highlands of Ontario and a lesser quantity, varying with the districts, in other parts of the Province. In Quebec, a depth of 13 inches at Montreal increased to 60 inches over the Gaspé Peninsula, while in the Maritime Provinces the snow was about 2 feet deep in Northern New Brunswick, the depth decreasing to about half an inch in Southwestern Nova Scotia, although Cape Breton Island was covered with about 30 inches.

## THICKNESS OF ICE.

Thickness of ice was reported as follows:

WESTERN PROVINCES.—Battleford, 28 inches; Swift Current, 30; Moose Jaw, 30; Qu'Appelle, 23; Minnedosa, 24.

KEEWATIN.—The Pas, 22.5 inches.

ONTARIO.—Port Arthur, 30 inches; Cochrane, 12; Sonthampton, 18; Port Stanley, 20.5; Kingston, 18; Ottawa, 25; Georgetown, 14; Paris, 18; Lucknow, 13; Bruce Mines, 14; Barrie, 14.

MARITIME PROVINCES.—Chatham, 17.5 inches; Sydney, 14; Charlottetown, 22.5; Fredericton, 23; Yarmouth, 12.



## WINDS, JANUARY, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
BRITISH COLUMBIA.							
Victoria .....	5821	454	33	2	5	13	N.
Steveston .....	4323	362	28	.....	8	8	E.
ALBERTA.							
Edmonton .....	3730	339	27	.....	1	2	NW.
Calgary .....	3114	284	32	1	.....	4	NW.
SASKATCHEWAN.							
Battleford .....	4526	295	19	.....	1	8	NW.
MANITOBA.							
Winnipeg .....	7394	484	30	1	4	8	NW.
ONTARIO.							
Port Arthur .....	7325	426	29	1	9	4	NW.
Parry Sound .....	6075	408	25	.....	3	7	NW.
Southampton .....	9946	808	40	3	12	5	S.
Windsor .....	7139	355	.....	.....	.....	.....	SW.
Guelph .....	7497	693	.....	.....	.....	.....	W. & NW.
Toronto .....	12530	965	46	8	7	8	W.
QUEBEC.							
Quebec .....	12176	865	62	10	10	5	NE.
Father Point .....	13077	1186	68	12	9	4	E.
MARITIME PROVINCES.							
Fredericton .....	7550	543	37	1	11	6	NW.
St. John .....	11474	866	53	10	9	7	NW.
Point Lepreau .....	16422	1399	69	16	11	3	NW.
Halifax .....	10671	817	50	7	12	5	NW.
Sable Island .....	18102	1201	.....	.....	.....	.....	NW.
Flat Point .....	16732	1074	57	16	7	3	W. & NW.
Charlottetown .....	7550	662	44	2	2	10	NW.



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\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.						
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 41 or more.	No. of fair days.	No. of aurora.
BRITISH COLUMBIA.—																	
S. Vancouver Island																	
Alberni (Beaver Creek).....	49 15	124 40	390	34.2	-1.7	15	22.0	30-31	10.0	7	10.5	10.56	+0.76	1.40	19	12	
Clayoquot.....	48 11	125 47	40	41.9	+1.2	13	58.5	29	25.0	1-7	12.6	17.83	+3.21	2.45	21	10	
Cowichan (Tzouhalem).....	48 25	123 42	170	37.6	.....	6	51.8	16	14.5	7	10.3	6.51	.....	1.00	17	14	
Ladner.....	49 05	123 4	.....	38.0	+3.8	11	56.0	23-26	14.0	7	12.1	4.70	-0.02	0.75	11	20	
Nanaimo.....	49 10	123 37	125	37.9	+0.7	11	51.0	14	19.9	1	8.6	6.10	-0.46	1.12	15	16	2
Salt Spring Island.....	48 50	123 20	.....	37.1	.....	3	54.0	14	22.0	18	8.1	5.66	.....	0.75	16	15	
Sooke.....	48 41	123 44	25	39.4	.....	2	55.0	14-25	20.0	1	9.8	6.32	.....	0.97	13	18	
Victoria.....	48 24	123 19	85	40.6	+0.5	20	52.5	24	23.5	1	7.2	4.15	-0.39	0.54	20	11	1
N. Vancouver Island																	
Holberg.....	50 30	126 18	.....	37.0	.....	2	51.2	29	23.0	1	5.7	29.53	.....	3.65	17	14	
Swanson Bay.....	50 37	126 53	.....	32.1	.....	4	52.0	15	12.0	9	10.3	21.67	.....	6.75	16	15	
Triangle Island.....	50 52	129 5	680	35.7	.....	1	44.0	22	24.0	1-6-7	4.0	5.93	.....	1.57	23	8	21
Winter Harbour (Quatsino).....	50 32	127 40	.....	38.9	+1.0	15	55.0	23	22.0	1	9.7	14.87	.....	2.68	16	15	
Lower Fraser River																	
Agrassiz.....	49 14	121 31	52	34.8	+1.0	21	53.0	.....	12.0	2-7	12.9	4.31	-1.73	0.82	13	18	
Hope.....	49 23	121 25	.....	27.2	.....	2	45.0	13-30	2.0	1	10.1	6.44	.....	1.30	14	17	
New Westminster.....	49 13	122 54	330	35.5	+0.1	25	51.4	23	13.6	7	9.8	8.30	+1.75	0.85	20	11	2
North Newmen.....	49 12	122 2	59	32.5	-1.4	20	55.0	29	6.0	1	11.9	10.10	+1.76	1.30	17	14	
Pemberton Hatchery.....	50 20	122 33	.....	22.6	.....	4	41.0	30	-1.0	2	8.2	3.63	.....	0.75	10	21	
Ruskin (Stave Falls).....	49 16	122 23	125	32.4	.....	3	48.0	30-31	6.0	8	12.5	6.88	.....	1.21	20	11	
Steveston (Garry Point).....	49 21	123 17	.....	36.1	-0.9	16	54.0	15	14.0	1	9.5	5.52	+0.20	0.75	18	13	1
Vancouver.....	49 17	123 5	136	37.4	-0.1	11	52.1	21	15.8	7	8.1	8.47	+1.29	0.97	22	9	2
Upper Fraser River																	
Babine Lake.....	55 38	126 26	.....	12.7	-5.8	22	40.0	29	-28.0	10-11	14.3	0.86	-1.87	0.30	6	25	
Barkerville.....	53 02	121 35	4180	11.2	.....	9	52.0	14	-31.0	7	23.1	0.25	.....	0.25	1	30	1
Chilhowie (Big Creek).....	51 40	123 0	3100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort St. James (Stuart Lake).....	54 28	124 12	2280	5.8	-4.1	19	37.0	29	-45.0	11	19.1	1.32	-0.25	0.26	9	22	2
Quesnelle.....	52 59	123 30	1700	8.2	-8.7	17	43.0	29	-31.0	10	17.0	0.45	-0.71	0.20	3	28	
Okanagan Valley																	
Fairview.....	49 11	119 36	.....	21.9	.....	3	46.0	21	-4.0	3	19.4	0.72	.....	0.20	8	23	
Hedley.....	49 35	120 10	.....	21.3	.....	8	45.0	29	-12.0	6	12.6	0.72	.....	0.20	8	23	
Hedley (Nickel Plate).....	.....	.....	.....	18.2	.....	.....	41.0	22	-20.0	7	13.7	2.65	.....	0.60	12	19	
Okanagan Mission (Kelowna).....	49 52	119 29	1200	20.3	-7.6	12	42.0	14-30	-14.0	7-8	13.9	2.07	+0.71	0.71	10	21	
Penticton.....	49 29	119 55	20.5	.....	.....	5	48.0	22	-1.0	3	11.1	1.01	.....	0.25	16	21	
Princeton.....	49 29	120 29	1650	15.6	-3.3	15	41.0	29	-27.0	7	17.6	1.59	-0.78	0.75	7	24	
Summerland.....	49 57	119 0	1100	21.5	.....	5	43.9	29	-7.0	2	11.6	1.52	.....	0.40	8	23	
Vernon (Coldstream Ranch).....	50 14	119 15	1246	16.7	-7.5	18	41.0	29	-18.0	2	13.5	2.38	+1.30	0.50	10	21	
West Kootenay																	
Fruitvale.....	49 9	117 31	.....	17.0	.....	1	43.0	30	-21.0	2-8	12.6	2.05	.....	0.47	16	15	
Grand Forks.....	49 2	118 27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greenwood.....	49 5	118 49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Needles.....	49 40	118 9	.....	23.2	.....	3	43.0	30	-7.0	7	11.3	3.00	.....	1.29	7	24	
Nelson.....	49 29	117 21	1760	22.9	.....	10	43.0	30	-4.0	7-8	10.8	3.58	.....	0.70	13	16	
Rossland.....	49 5	117 48	3400	21.0	-5.5	9	39.0	30	-5.5	8	6.7	3.61	.....	0.60	12	19	
East Kootenay																	
Akamina (S. Kootenay Pass).....	49 10	114 20	4150	.....	.....	.....	.....	.....	.....	.....	.....	6.20	.....	.....	6	25	
Boswell.....	49 19	116 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cranbrook.....	49 30	115 50	.....	14.9	.....	3	48.0	30	-25.0	7-8	20.2	1.10	.....	0.40	5	26	
Nicola Plains (Elko).....	50 9	120 29	2120	16.2	-7.6	3	47.0	26-30	-12.0	7	11.8	2.23	+0.72	0.70	8	23	
Wilmer.....	50 34	116 14	.....	9.6	.....	3	44.0	30	-20.5	8	13.3	1.14	.....	0.50	5	26	
Thompson River																	
Enderby.....	50 32	119 7	1180	17.6	-6.7	10	45.0	30	-25.0	7	8.3	3.19	-0.72	0.80	13	18	
Kamloops.....	50 41	120 29	1245	17.0	-7.7	21	47.5	29	-18.0	2	12.3	3.18	+0.23	0.40	10	21	
Nicola Lake.....	50 9	120 29	2120	16.2	-7.6	3	47.0	15	-22.0	7	13.5	1.24	+0.22	0.35	9	22	
Salmon Arm.....	50 42	119 35	1152	20.7	.....	1	46.0	25	-15.0	5	12.3	2.76	.....	1.53	4	27	
Tranquille.....	50 41	120 29	.....	17.7	.....	4	48.0	25	-15.0	1-2	13.6	0.75	.....	0.25	4	27	
North Columbia River																	
Golden.....	51 16	116 55	2550	13.7	.....	10	41.0	14-20	-32.0	4	13.7	1.95	-0.04	0.80	6	25	
Glacier.....	51 14	117 29	4672	10.1	.....	10	35.0	30	-17.0	17	10.2	7.90	-1.91	1.30	15	16	
Revelstoke.....	51 0	118 6	1476	17.0	.....	11	46.6	30	-17.0	8	11.6	5.21	+0.16	1.50	14	17	

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				Mean.	Difference from average.	Y's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 61 or more.	No. of fair days.	No. of Auroras.
SASKATCHEWAN—																	
Qu'Appelle River																	
Brownhill (Greenfell) .....	50 23	102 53	1957	-9.7	-7.8	21	33 0	30	-45 0	11 19 9	0 50	0.30	3	25	1	3	
Brownlee .....	50 45	106 0															
Crescent Lake .....	50 59	102 25	1658	-15.5	-	8	32 0	31	-48 4	11 22 3	0 14	0.04	4	27	1	1	
Estevan .....	49 12	103 3	1836	-12.2	-5.1	11	35 0	30	-42 0	10 17 4	0 20	0.10	2	29			
Hubbard .....	51 5	103 30		-12.9	-	1	30 0	29	-50 0	11 16 0				31			
Humboldt .....	52 12	105 9															
Imperial .....	51 22	105 23															
Indian Head .....	50 25	103 40	1924	-8.1	-9.3	21	36 0	30	-47 0	11 17 6	0 34	0.30	3	28			
Manor .....	49 43	102 2	2064														
Moose Jaw .....	50 21	105 35	1759	-3.6	-6.5	17	38 0	30	-44 0	11 17 7	0 25	0.10	4	27			
Moosemin .....	50 0	101 37	1884	-11.4	-	9	35 0	30	-47 0	11 15 8							
Muenster (St. Peter's) .....	52 3	103 0	1870	-14.4	-	1	35 0	30	-54 0	11 20 2	0 20	0.10	1	30			
Pilger .....	52 25	105 9		-12.5	-	8	31 0	30-31	-55 0	10 20 6	0 37	0.17	3	28			
Pense (Gatesgarth) .....	50 20	105 0	1879	-6.7	13.0	17	37 0	30	-48 0	10 23 6	0 50	0.25	3	28			
Qu'Appelle .....	50 30	103 47	2115	-8.4	-10.4	28	36 0	30	-47 0	11 15 5	0 35	-0.33	19	4	27		
Quill Lake .....	52 4	104 14	1690	-14.3	-	1	30 0	30	-54 0	11 25 0	0 30	0.20					
Regina .....	50 27	114 37	1853	-7.8	-4.5	25	35 0	30	-47 0	11 16 7	0 14	-0.24	0.05	5	26		
Strasbourg .....																	
Yarbo (Fairfield) .....	50 39	102 4															
Yellow Grass .....	49 49	104 9		-4.2	-	1	42 0	31	-43 0	10 17 7							
Yorkton .....	51 11	102 29															
S. Saskatchewan River																	
Chaplin .....	50 26	106 39	2202	4.9	-	24	36 0	29	-49 0	10 19 7	0 09	0.02	6	25			
Battle Creek .....																	
Gravelbourg .....																	
Larchmont (Glenbryan) .....	49 54	107 27		-1.3	-	2	38 0	31	-53 0	11 21 0	0 40	0.20	4	27	1	1	
Maple Creek (Divide) .....	49 53	109 28	3500	-6.3	-	2	42 2	15	-43 4	11 15 7	0 44	0.10	10	21	1	2	
Oliver .....	51 46	108 10		-7.4	-	2	36 0	29	-55 0	11 17 3	0 69	0.20	4	27	4		
Rathmullen .....	51 20	108 57		-6.9	-	2	32 3	22	-51 2	11 21 1	0 40	0.13	6	25			
N. Saskatchewan River																	
Battleford .....	52 41	108 20	1620	-6.8	-5.6	22	36 0	30	-46 0	11 14 2	0 02	-0.44	0.01	2	29		
Lloydminster .....	53 13	110 0		-6.8	-	6	33 0	31	-49 0	11 18 3							
Luseland .....	52 5	109 34		-3.2	-	1	35 0	21-31	-53 0	11 16 5	0 55	0.20	5	26			
Prince (Meota) .....	51 0	108 20	1700	-11.2	-	6	33 0	30	-52 0	10 22 3	0 20	0.10	10	28	1	3	
Scott (Ex. Farm) .....	51 59	109 30		-7.6	-	1	31 8	21	-48 3	11 18 9	0 37	0.15	7	24			
Waseca .....	53 6	109 29		-7.2	-	5	33 0	30	-45 0	10 17 8	0 49	0.19	5	26	1		
The Saskatchewan Forks																	
Chagness .....	52 32	104 13		-11.4	-	1	30 0	30-31	-55 0	11 16 0	0 50	0.20	4	27	3		
Duck Lake .....	52 54	106 20															
Melfort .....	52 47	104 30		-12.8	-	3	30 0	30	-48 0	10 18 1	0 10	0.10	1	30			
Prince Albert .....	53 10	106 0	1432	-12.4	-9.1	26	34 0	30	-53 0	11 17 6							
Rosethorn .....	52 40	106 20	1657	-12.5	-	2	34 4	31	-54 1	11-12	0 30	0.20	2	29			
Saskatoon .....	52 15	106 30	1571	-9.8	-11.3	26	35 0	31	-55 0	11 16 0							
Lower Saskatchewan River																	
Lost River .....				-15.0	-	2	31 0	31	-48 0	10 20 1							
Cumberland House .....	53 56	102 16		-14.0	-	1	34 0	30	-44 0	10 15 0							
MANITOBA—																	
Qu'Appelle and Assiniboine Rivers																	
Awenae (St. Albans) .....	49 42	99 35	1180	-12.2	-10.0	25	33 0	30	-42 0	11 19 6	0 33	-0.79	0.13	6	25	4	
Birtle .....	50 25	101 1	1703														
Brandon .....	49 51	99 37	1176	-12.7	-10.6	25	29 9	30	-45 4	11 19 0	0 30	-0.53	0.10	3	25		
Carberry .....	49 52	99 20	1258			7					0 20	0.20	1	30			
Carman .....	49 31	98 0	872														
Cypress River .....	49 33	98 3	1232														
Hillview .....	49 55	100 33	1400	-13.2	-8.8	26	28 0	30	-45 0	11 15 2	0 30	-0.72	0.30	1	30		
Minnedosa .....	50 15	99 30	1699	-12.7	-12.1	28	27 5	31	-45 0	10-11	0 49	-0.39	0.20	9	22	1	
Ninette .....	49 24	99 38	1362	-7.1	-	1	30 0	30	-42 0	11 18 9	0 21	0.15	2	29			
Ninga .....	49 14	99 51	1649	-13.6	-	2	22 0	22	-41 2	11 14 8	0 61	0.60	1	30			
Pierson .....	49 11	101 5	1531														
Pipestone .....	49 34	100 58	1400														
Portage la Prairie .....	49 57	98 17	830														
Portage la Prairie (2) .....	49 56	98 17		-12.5	-8.6	22	21 0	31	-43 0	11 17 2	0 38	-2.52	0.15	3	28		
Treherne .....	49 36	98 40	1212	-11.2	-9.7	16	26 0	30-31	-42 0	11 16 0	0 48	0.18	8	23			
Virden .....	49 51	100 55	1444														
The Red River																	
Almasippi .....	49 14	98 20		-12.6	-10.6	10	27 0	31	-48 0	11 19 7	0 35	0.20	3	26			
Morden .....	49 11	98 6	978	-11.0	-	8	25 0	31	-43 0	11 17 4	0 53	0.30	4	27			
Old Bank .....	49 57	96 42	890	-13.1	-11.3	17	23 7	31	-43 5	11 15 8	0 49	-0.51	0.20	4	27		
Stony Mountain .....	50 40	97 14	893	-14.1	-12.7	30	23 0	31	-47 0	11 21 6	0 10	-0.30	0.05	2	28		
Winnipeg .....	49 53	97 7	700	-11.5	-8.9	38	24 8	31	-41 3	11 16 8	0 30	-0.67	0.07	9	22		

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1912.

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STATION	TEMPERATURE.										PRECIPITATION.							
	Latitude N	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No of aurors.	No. of thunder-storms.	No. of fogs.
MANITOBA—Continued																		
Dauphin Lake and River																		
Dauphin	51 8	100 2	937	-11 8		7	27 0	31	-40 5	11	18 8	z	—	z	0 31			
Moose Horn Bay Atkins-	51 15	99 33		-16 2		2	23 7	31	-42 5	11	15 6	0 32	—	0 10	11 20	1		
Berens River	52 18	97 23	716	-21 6		4	7 0	24	-43 0	10	16 9	0 80	—	0 88	1 30			
Lake Winnipegosis																		
Swan River	52 6	101 15	1112	-16 3	—	4	22 0	31	-47 0	9	16 5	0 20	—	0 20	1 30			
Le Pas	53 49	101 15	860	-17 7	—	2	23 0	30	-54 0	10	15 5	0 02	—	0 02	1 30			
ONTARIO—																		
The Lake Superior Districts																		
Rainy River																		
Kemora	49 48	94 32	1102	-15 3	-17 9	13	18 0	31	-45 0	11	15 6	0 45	—	0 35	2 29	1		
Thunder Bay																		
Kakabeka Falls	48 29	89 26	912	-13 8		4	30 0	30	-46 0	7	28 1	0 40	—	0 25	4 27	4		
Port Arthur	48 27	89 12	644	-7 7	-14 7	31	23 0	29	-36 0	7	29 1	0 26	-1 43	0 18	4 27			
Schreiber	48 50	87 15	633	9 1		10	22 8	17	-40 5	12	25 4	1 95	—	0 60	6 25	2		1
Algoma																		
Brace Mines	46 18	83 55	595	0 6	-13 8	15	30 5	30	-33 0	12	22 7	2 00	-0 00	0 80	9 22	2		
Copper Cliff	46 30	80 59		-2 5		6	26 0	18	-38 0	13	23 8	1 25	—	0 50	7 24			
Porcupine	48 29	81 18																
Providence Bay	45 40	82 14		3 5		1	34 0	1	-38 0	6-13	23 8	6 29	—	1 40	10 21			
White River	48 35	85 16	1232	-13 3	-14 1	22	26 0	31	-58 0	6	29 1	1 79	-0 03	0 60	7 24			
Nipissing																		
Cochrane	49 2	81 0	946	-10 8		2	21 0	18 29	-50 0	6	20 0	1 10	—	0 60	3 28			1
Haileybury	47 29	79 39	687	-3 7	-10 1	18	24 6	18	-29 8	13	21 4	1 68	0 35	0 52	13 18	3		2
Montreal River	47 8	79 29		1 6		2	52 0	19-20	-44 0	13-15	31 3	3 23	—	1 00	10 21			
Upper Ottawa River																		
Lake Taron (Rutherford)	46 15	78 48		-5 2	—	3	23 0	30	-45 0	13	20 7	2 90	—	0 40	14 17			
Stoneliff (Rockliffe)	46 9	78 6	557	-4 3	-11 1	34	24 0	1	-40 0	13	26 4	2 63	+0 64	0 76	12 19			
Upper St. Lawrence																		
Kingston	44 13	76 29	283	9 7		37	39 5	19	-20 1	13	16 9	2 53	-0 34	0 40	17 14			
Montague	44 56	75 57		1 7		2	39 1	18	-35 5	13	20 8	1 93	—	0 80	6 25			
North Gower	45 8	75 43																
Ottawa	45 26	75 42	294	2 4	-9 6	29	36 6	19	-27 0	13	17 2	3 00	-0 01	0 75	15 16			
Renfrew	45 26	75 39	416	0 2	-10 4	22	36 0	18	-37 2	13	21 3	3 07	+1 38	0 60	15 15			2
Georgian Bay Counties																		
Barrie	44 23	79 41	839															
Beatrice	45 8	79 20	800	3 9	-8 1	35	34 0	18	-35 0	13	22 3	4 75	+0 65	0 80	15 16			
Coldwater	44 38	79 20	600	1 9	-13 0	23	37 0	18	-46 0	13	23 4	4 98	+0 72	0 72	18 13			
Collingwood	44 31	80 2		9 6	-8 0	20	49 0	1	-27 0	6-26	19 0	2 10	—	1 10	6 25			
Gravenhurst	44 54	79 20		1 8	-13 2	41	35 0	18	-48 0	13	26 1	1 68	+1 34	0 80	19 12			
Huntsville	45 19	79 8		0 8		5	34 0	18	-42 0	13	22 1							
*Midland	44 44	79 53	750			4						7 10	—	0 80	17 14			
Orillia	44 37	79 24	775	6 8	-10 9	18	36 0	18	-29 0	13	14 5	4 28	—	1 20	17 19			
Owen Sound	44 34	80 55	597	11 2	-9 3	31	38 0	18	-30 0	26	21 0	6 90	+2 47	1 80	10 21			
Parry Sound	45 19	80 0	635	3 8	-9 7	36	33 0	18	-34 0	13	20 3	7 30	+2 84	1 20	19 12			
Rouville	45 15	78 57	1038	9 1		5	32 0	18	-51 0	13	24 2							
Shedden	44 5	80 41		6 8		—	35 0	-1	-20 0	12	14 0	2 83	—	0 80	15 16			
1 Islands	45 48	79 25		0 6	-10 8	25	30 1	1-19	-30 1	19	28 7	5 35	+1 44	0 80	17 14			
Lake Huron Counties																		
Brimm	43 2	81 55	600	10 2		30	35 6	18	-20 0	13	12 1	2 83	-0 38	0 68	10 21			
Clinton	43 32	81 37		10 8		1	38 0	1	-21 0	13	12 6	4 03	—	0 44	18 13			
*North Bruce	44 23	81 25		10 9		23	34 0	18	-20 0	25	—	2 67	-0 55	0 50	18 13			
Point Clark	44 5	81 44	595	13 2	-9 6							2 10	—	0 40	8 23			
*Scania	42 50	82 24	586	12 1		17	37 0	18	-20 0	13	—	0 60	-1 27	0 60	1 30			
Southampton	44 30	81 21	656	10 8	-11 1	35	24 0	18	-17 0	26	13 2	4 54	+0 57	0 55	23 18			
Lakes St. Clair & Erie, Niagara Peninsula																		
Chatham	42 23	82 12	595	11 6	-11 9	23	37 0	18	-14 0	13	15 0	2 11	-0 35	0 53	6 25			
Cottam	42 7	82 45	606	11 5	-14 6	24	42 0	1 2	-17 0	12	20 4	2 38	+0 05	0 85	12 19			
Grimsby	43 13	78 36		14 9		3	42 0	21	-46 0	10-21	13 2	2 41	—	0 50	11 20			
Pelee Island	41 50	82 32	583	12 1	-15 3	25	31 0	24	-20 0	13	17 2	2 73	+0 68	1 32	5 25			
Port Burwell	42 30	80 55	592	12 0		8	35 0	18	-21 5	13	13 1	2 73	—	0 40	13 18			
Port Dover	42 27	80 13	635	9 4	-12 8	37	35 4	18	-20 0	13	13 8	3 57	+0 20	0 96	18 13			
Port Stanley	42 40	81 12	592	12 1	-11 2	36	35 2	18	-23 6	13	14 1	3 56	+0 23	0 76	20 11			
St. Catharines	43 9	79 17	347	14 1	-11 4	28	33 0	20	-12 0	13	14 8	2 25	-0 82	0 59	8 23			
Stoney Creek	43 13	79 45	292	14 1		6	36 0	17 18	-15 0	12	16 4	2 60	—	0 56	12 19			
Walden	42 59	79 17	577	13 4	-7 8	25	40 0	18 15	-14 0	13	16 2	1 88	-2 20	0 30	11 20			
Windsor	42 30	81 4	625	11 6	-8 6	51	37 0	18 19	-13 0	13	16 0	2 20	-0 87	0 70	10 21			

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1912.

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STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE:						PRECIPITATION					Days with 01 or more.	No. of aurora.	No. of thunderstorms.	No. of fogs.							
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Heaviest fall in month.											
<b>ONTARIO—Continued—</b>																									
<b>West-Central Counties</b>																									
Alton .....	43 51 30	80 5	1259	6.0	-8.4	26	35.8	1	-26.1	13 20.3	1.90	-0.37	0.50	11 20.3											
Brantford .....	43 10 30	80 21	750	11.0	-7.2	31	39.0	18	-17.0	12 15.7	1.15	-0.37	0.60	4 30.7											
Guelph .....	43 33 30	80 16	1030	10.3	-7.8	24	38.0	1	-16.6	13 14.0	1.89	-0.50	0.50	11 20.0			2								
London .....	42 59 31	81 13	808	10.8	-10.7	29	37.5	18	-24.5	13 18.3	4.67	+0.95	0.96	19 12.2											
Paris .....	43 12 30	80 25	849	12.6	-9.4	23	37.0	18	-19.0	13 14.7	2.97	+0.14	0.99	11 20.0											
Stratford .....	43 23 31	80	1191	8.8	-10.6	17	37.0	1	-24.0	13 14.9	4.89	+3.02	1.80	12 19.0											
Woodstock .....	43 8 30	47	580	11.1	-9.4	37	37.0	18-19	-19.0	13 16.7	1.70	—	0.74	8 23.3											
<b>Lake Ontario Counties</b>																									
Agincourt .....	43 47 79	16	590	10.1	-9.4	16	37.0	18	-14.1	13 14.0	2.10	-0.20	0.40	13 16.0			1								
Aurora .....	43 57 79	24	886	9.5	—	4	36.2	18	-22.8	13 19.1	1.61	-0.49	0.51	12 19.0											
Hamilton .....	43 16 79	54	303	13.7	—	36	40.0	18	-9.0	13 11.9	—	—	—	—											
Lorne Park .....	43 32 79	37	—	11.7	—	3	41.0	1	17.0	13 17.4	1.24	—	0.87	—											
Scarboro Jet. ....	43 43 79	13	548	9.6	—	3	36.0	18	-17.0	6-13 17.3	1.72	—	0.35	7 24.0											
Toronto .....	43 40 79	24	350	13.9	-9.0	71	38.5	18	-11.7	13 14.7	2.97	—	0.61	18 12.0											
Toronto Is. (Lakeside Home)	44 40 79	8	—	14.6	—	7	38.0	18-19	-10.0	6-28 15.0	—	—	—	—											
Uxbridge .....	43 40 79	54	886	7.5	—	8	39.0	18	-25.5	13 13.8	2.12	—	0.36	12 19.0											
<b>East-Central Counties</b>																									
Bancroft .....	45 1 77	50	1050	1.6	-10.1	23	35.0	18	-45.0	12 24.9	—	—	—	—											
Haliburton .....	45 1 78	28	—	3.2	-19.6	26	35.0	18	-46.0	13 23.4	—	—	—	—											
Kilmount .....	44 45 78	38	920	-0.8	-14.9	13	34.0	18	-47.0	12 26.8	2.89	—	0.90	8 23.0											
Lakeland .....	44 25 78	15	850	8.6	-6.8	25	37.0	19-20	-21.0	6 18.7	1.45	-0.99	0.40	8 13.0											
Lindsay .....	44 20 78	45	872	6.4	-9.0	31	35.6	18	-29.0	13 18.8	3.64	-0.39	1.20	18 13.0			2								
Madoc .....	44 30 77	29	575	5.5	—	8	37.0	18	-32.0	13 16.9	5.07	—	1.20	16 15.0											
Peterboro .....	44 17 79	19	722	8.0	-7.4	40	37.0	1	-29.0	13 21.4	3.52	-0.48	1.50	10 21.0			1								
Ursin .....	44 54 78	18	—	3.1	—	5	36.0	2	-45.0	12 16.7	2.90	—	1.10	7 24.0											
<b>QUEBEC—</b>																									
<b>Middle St. Lawrence</b>																									
Brome .....	45 10 72	36	678	3.0	-9.7	31	38.0	19	-34.0	26 18.0	2.30	+0.17	1.20	6 25.0											
Cap Rouge .....	46 46 71	18	—	-0.9	—	1	34.0	20	-24.0	7-27 19.1	3.75	—	0.89	16 15.0											
St. Eustache .....	45 55 71	21	836	3.0	—	2	38.0	20	-30.0	7 18.1	1.60	—	1.60	6 25.0											
Montreal .....	45 30 73	35	187	5.1	-8.1	37	35.0	19	-19.0	6 13.1	3.14	-0.61	1.07	17 14.0			2								
Perkins Mills .....	45 38 75	38	—	—	—	—	—	—	—	—	—	—	—	—											
Quebec .....	46 48 71	13	296	2.3	-7.8	37	34.0	19	-23.5	7 14.8	3.84	+0.74	1.33	18 23.0			2								
Ste. Anne de Bellevue	45 37 73	59	—	—	—	—	—	—	—	—	0.60	—	0.45	2 19.0											
Shawinigan Falls .....	46 34 72	43	—	-7.0	—	9	33.0	19	-49.0	13 22.4	0.42	—	0.15	8 23.0			11								
Sherbrooke .....	45 32 72	5	620	2.9	—	9	39.8	19	-35.5	26 22.1	2.65	—	0.92	19 12.0											
<b>Lower St. Lawrence &amp; Gulf</b>																									
Anticosti, E. Pt. ....	49 6 61	42	39	9.2	-23.9	29	31.0	19	-17.0	24	—	2.68	+0.63	0.28	6 25.0										
Anticosti, S.W. Pt. ....	—	—	—	—	—	—	—	—	—	—	—	—	—	—											
*Anticosti, W. Pt. ....	49 52 64	32	39	7.4	-2.7	29	30.0	19	-12.0	24	—	4.45	—	1.10	11 20.0										
*Bicquet .....	48 25 68	53	—	3.1	—	31	32.0	19	-24.0	27	—	5.80	—	3.66	8 23.0										
*Cape Chatte .....	49 6 66	45	—	3.9	-7.6	23	29.0	19	-10.0	7-23	—	1.30	—	0.40	4 27.0										
*Cape Masdalen .....	49 16 65	20	93	5.3	-5.3	29	34.9	19	-12.0	27	—	2.45	—	0.50	12 19.0										
Father Point .....	48 31 68	19	20	2.8	-6.0	34	37.0	19	-21.5	27 16.1	3.89	-1.34	0.90	9 22.0											
<b>Lake St. John</b>																									
Chicoutimi .....	48 25 71	5	150	—	-7.6	-10.0	34	—	-40.0	27	—	1.46	—	0.70	8 23.0			3							
Chicoutimi (2) .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—											
Lake Edward .....	47 39 72	15	1333	10.9	—	2	29.8	19	-47.0	13 30.6	2.85	—	0.60	10 21.0			1								
La Tuque .....	47 27 72	48	—	-7.6	—	1	30.0	19-20	-41.0	13 26.6	1.90	—	0.80	6 25.0											
Mistassini .....	—	—	360	-12.9	—	1	23.0	20	-41.0	27 27.5	—	—	—	—											
*Roberval .....	48 31 72	13	352	—	—	—	—	—	—	—	—	—	—	—											
<b>The Northwestern Districts</b>																									
Abitibi .....	48 33 79	22	—	-11.0	-12.4	16	20.0	18-19	-46.0	26 23.3	1.50	-0.48	0.50	8 23.0											
Manonan Crossing .....	—	—	—	-5.9	—	1	20.0	19-20	-57.0	27 27.3	1.20	—	0.60	3 27.0											
Weymontachieque .....	—	—	—	—	—	—	—	—	-46.0	12	—	1.40	—	0.50	4 27.0										
<b>The North Shore</b>																									
Clarke City .....	50 10 66	25	—	-2.8	—	—	23.0	19-20	-41.0	23 22.9	3.90	—	1.40	7 24.0											
<b>NEW BRUNSWICK—</b>																									
Chatham .....	47 3 65	29	21	8.1	-3.3	37	46.0	19	-22.0	27 20.2	3.13	-0.45	0.78	10 21.0											
Dalhousie .....	48 4 66	22	30	3.0	-4.7	30	29.0	8	-22.0	23-27 20.1	3.40	+0.28	1.00	5 25.0											
Fredrickton .....	15 57 66	36	164	7.2	-5.0	40	46.5	19	-31.5	27 20.1	3.10	+0.13	0.85	10 21.0											
GrandManan .....	44 47 66	49	15.9	4.8	-2.7	49	7	19	-9.0	13 16.1	1.96	+0.22	1.59	13 18.0											
Moncton .....	46 6 64	45	50	10.7	-5.0	14	50.0	19	-19.0	26 21.4	1.60	-1.01	0.40	7 24.0											
*Point Lepreau .....	45 4 66	28	30	15.7	-5.6	33	45.0	9-19	-8.0	13	—	2.40	-2.34	0.67	10 21.0										
St. John .....	45 17 66	4	70	13.4	-6.3	39	46.3	19	-12.7	13 16.1	3.08	-1.46	1.15	5 16.0											
St. Stephen .....	45 11 67	16	35	10.4	-6.2	15	47.0	19	-30.5	27 21.5	1.71	-2.39	0.60	5 26.0											
Sussex .....	45 38 65	38	69	10.8	-4.3	15	51.0	19	-29.0	27 19.9	1.91	-2.64	0.60	6 25.0											



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STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION				
				Mean	Difference from average	Yr's. Observations	Highest	Date	Lowest	Date	Mean daily average	Amount	Difference from average	Heaviest fall in month	Days with (1) or more
															No. of fair days
															No. of Auroras
															No. of thunderstorms
															No. of fogs
NOVA SCOTIA—															
Antigonish	45 38	61 59	50	16.7	—	1	67.0	5	-22.0	28	28.4	—	—	—	—
Halifax	44 39	63 36	88	18.6	-5.5	37	47.6	19	-6.7	26	16.2	5.99	+0.14	1.49	21 10
Kentville	45 29	61 22	40	14.1	—	1	47.0	19	-9.0	27	14.1	5.73	—	0.86	9 22
Parsonsboro	45 23	64 19	40	—	—	—	—	—	—	—	—	—	—	—	—
Port Hastings	45 29	61 22	45	15.2	-8.0	20	45.0	1	-14.0	26	12.9	—	—	—	—
Sable Island, E. Pt	43 58	59 46	25	—	—	—	—	—	—	—	—	—	—	—	—
Sydney	46 10	60 10	35	18.1	-4.0	38	48.0	19-20	-12.8	27	16.6	5.94	+0.69	1.20	12 19
Truro	45 22	63 18	75	14.7	-4.7	37	49.0	19	-25.0	26	21.1	2.03	+0.16	0.45	19 12
Whitehead	45 15	61 8	20	18.3	-6.2	27	41.0	1	-10.0	8	—	4.41	+0.74	1.00	8 23
Windsor	44 59	64 6	90	16.3	—	35	48.0	10	-13.5	27	14.8	3.47	+0.60	0.95	10 21
Wolfville	45 7	64 29	—	17.1	-4.5	11	51.0	20	-7.8	27	15.9	2.92	-1.22	0.47	12 19
Yarmouth	43 50	66 2	65	22.4	-4.2	31	47.0	19	-2.2	14	12.6	3.42	-1.74	0.89	21 10
P. E. ISLAND—															
Charlottetown	46 14	63 10	38	13.1	-5.5	36	43.0	19	-15.0	27	15.4	2.41	-0.97	0.43	15 16
Charlottetown (Exp. Farm)	46 14	63 7	75	12.5	—	1	43.0	9	-14.5	27	16.8	3.27	—	0.42	20 11
Hamilton	46 23	63 48	—	—	—	—	—	—	—	—	—	—	—	—	—
NEWFOUNDLAND—															
*Anson Point	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—	—
Burns	47 0	55 10	27	21.1	—	2	44.0	20	2.0	14	18.4	13.10	—	2.40	23 8
*Cape Norman	51 38	55 52	—	—	—	—	—	—	—	—	—	—	—	—	—
Fogo	49 43	54 17	30	14.7	—	2	42.0	20	-3.0	25-27	10.5	11.50	—	2.50	15 16
*Point Riche	50 42	57 25	35	8.1	—	—	30.0	20	-12.0	9	—	0.50	—	—	8 23
Port aux Basques	47 35	59 10	27	17.8	—	3	38.5	10	-2.5	11	10.9	7.48	—	1.30	27 4
St. John's	47 34	52 42	125	21.0	-3.2	39	48.0	20	1.0	14	12.3	7.40	+1.11	2.10	20 11
BERMUDA—															
Prospect	32 17	64 46	151	63.6	+1.1	21	74.0	2	51.8	11	10.3	6.54	+1.64	1.56	22 9



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE MONTH OF JANUARY, 1912.

a Barometer not reduced to sea level

STATION	Latitude N	Longitude W.	Elevation above sea level in feet.	PRESSURE.			Range.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM								Total number of observations.	VELOCITY OF WIND									
				Mean reduced.	Highest.	Lowest.					N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		C.	Mean miles per hour.	Maximum velocity.	Days and direction from.						
BRITISH COLUMBIA—																													
Atlin	50	55	133	38	2240	29	11	30	9	73	1	5	1	2	2	2	3	0	0	0	4	42	11	16	12	N			
Barkerville	53	2	121	35	4180	29	97	30	4	5	1	0	0	0	0	0	7	0	0	55	62	3	40	29	SW				
Kamloops.	50	41	120	29	1245	30	11	30	6	9	1	2	4	6	5	8	3	20	3	16	62	3	14	10	W				
oNanaimo	49	10	123	37	125	29	10	30	37	9	38	6	99	0	0	0	6	6	6	29	62	4	8	25	21	SE			
Prince Rupert	54	18	130	18	170	29	70	30	3	8	1	47	0	19	3	4	1	1	0	33	62	3	20	31	E				
Triangle Island	50	32	129	5	180	29	85	20	33	9	13	1	24	100	1	0	10	3	3	0	62	46	2	100	23	E			
oTranquille	50	11	120	20		28	79	29	27	8	26	9	99	0	0	0	9	1	27	62									
Vancouver	49	17	123	5	136	30	01	30	4	9	32	1	16	8	2	14	1	1	1	21	62	12	10	29	SE				
Victoria	48	24	123	19	85	29	18	20	4	9	28	1	16	33	6	6	4	2	3	3	4	1	62	7	37	24	E		
YUKON—																													
Dawson	61	4	139	20	1200																								
ALBERTA—																													
Banff	51	10	115	34	4542	30	12	50	64	29	51	1	15				22	14	0	26	62	9	35	20	SW				
Calgary	51	2	111	2	3380	30	04	30	68	29	42	2	26				1	2	23	62	4	3	32	7	NW				
Edmonton	53	33	113	20	2158	30	09	30	7	29	59	1	14				9	10	4	62	5	3	27	7	NW				
Medicine Hat	50	1	110	37	2161	30	06	30	7	29	51	1	38				9	24	4	0	62	3	7	10	15	SE			
SASKATCHEWAN—																													
Regina	52	41	108	20	1620	30	13	20	7	29	40	1	32				0	3	4	24	25	93	6	20	4	NW			
Moose Jaw	50	21	105	35	1750	30	21	30	7	29	57	1	35				6	18	25	18	93	5	22	8	NW				
Qu'Appelle	50	30	103	47	2115	30	09	30	7	29	46	1	25				8	14	23	0	62	12	2	20	30	NW			
Swift Current	50	20	107	45	2439	30	14	20	7	29	28	1	48				9	19	29	25	2	93	7	13	11	S			
MANITOBA—																													
oWinnipeg (St. Alban's)	49	42	99	33	1180	28	79	29	2	28	31	1	04				0	1	8	22	27	62	4	19	17	NW			
Winnipeg	50	15	99	30	1699	30	13	30	7	29	57	1	18				1	9	11	17	2	62	10	27	30	S			
Winnipeg	49	53	97	7	760	30	17	30	8	29	40	1	22				5	10	9	11	17	2	62	10	27	30	S		
ONTARIO—																													
Cochrane	49	2	81	0	946	30	10	30	68	29	33	1	35				10	0	3	4	10	5	62	6	16	9	W		
Haliburton	47	22	79	39	987	30	07	30	68	29	20	1	48				7	1	1	8	2	4	10	15	14	62			
Kingston	44	15	76	29	285	30	06	30	7	29	54	1	16				4	15	1	11	1	4	9	17	0	62			
London	42	56	51	13	808	29	49	30	52	29	27	1	25				3	16	33	0	93	9	2	10	8	SE			
Ottawa	45	26	25	42	294	30	02	30	64	29	05	1	59				4	8	16	0	0	3	16	15	0	62			
Port Stanley	45	19	50	0	635	30	01	30	57	29	28	1	31				10	8	5	12	0	3	6	16	2	62			
Port Arthur	48	27	49	12	444	30	10	30	7	29	20	1	48				3	2	2	2	2	2	22	2	1	62			
Port Stanley	42	40	81	13	592	30	09	30	71	29	30	1	32				4	0	6	6	0	6	18	21	1	62			
Southampton	41	30	81	21	656	30	01	30	57	29	28	1	31				9	23	13	9	8	6	21	1	0	62			
Stonehill	46	9	78	6	557	30	00	30	61	29	40	1	21				0	0	12	0	0	38	62	2	8	62			
Toronto	43	40	79	24	530	30	04	30	62	29	33	1	30				11	7	4	2	2	3	22	11	0	62			
White River	48	35	85	16	1252	30	09	30	62	29	33	1	30				8	1	4	2	2	1	7	2	83	62			
Woodstock	43	8	80	47	180	30	05	30	66	29	29	1	37				4	6	2	10	2	21	25	23	0	93			
QUEBEC—																													
Father Point	48	31	18	19	20	29	94	30	42	28	55	1	87				6	10	9	3	9	2	4	7	21	5	2	62	
Montreal	45	30	23	25	187	30	09	30	61	28	92	1	69				5	9	13	4	3	1	2	10	20	7	2	62	
Quebec	46	46	71	13	296	29	56	30	34	28	73	1	83				6	10	2	18	1	0	3	19	14	5	0	62	
NEW BRUNSWICK—																													
Chatham	47	3	45	29	21	29	91	30	53	28	33	2	20				4	5	1	9	7	1	0	7	30	6	1	62	
Fredericton	45	57	46	36	164	29	94	30	58	28	77	1	82				8	3	11	1	0	3	8	23	35	6	58	9	8
Grand Manan	41	47	46	46	40	29	91	30	51	28	72	1	79				6	6	9	14	5	2	0	6	6	19	1	62	
St. John	45	17	46	4	70	29	91	30	58	28	56	1	03				5	8	19	9	0	3	0	3	3	24	1	62	
NOVA SCOTIA—																													
Halifax	41	39	43	36	88	29	86	30	54	29	15	1	39				7	11	2	4	2	1	11	21	0	62			
Sydney	45	10	40	10	35	29	81	30	50	28	70	1	80				6	10	4	0	6	10	24	3	62				
oWolfeville	45	7	64	20	29	80	30	40	28	53	1	78					6	13	5	2	2	5	10	17	2	62			
Yarmouth	43	50	46	2	65	29	50	30	57	29	11	1	46				17	5	14	4	4	1	6	11	0	62			
P. E. ISLAND																													
Charlottetown	46	11	43	10	28	29	86	30	50	28	77	1	73				3	6	1	2	4	8	7	13	18	62			
NEWFOUNDLAND																													
Burns	47	0	55	10	27	29	77	30	57	28	95	1	62				5	9	7	2	4	4	1	10	5	24	1	58	
Fogo	49	13	54	17	30	29	60	30	22	28	47	1	75				8	5	4	6	3	4	2	5	10	13	1	58	
Port aux Basques	47	35	50	10	27	29	70	30	40	28	53	1	87				9	24	4	9	4	2	2	6	17	17	0	62	
St. John's	47	34	52	42	125	29	56	30	31	28	21	2	07				7	13	3	9	0	5	1	9	15	17	3	62	
BERMUDA																													
Prospect	32	17	44	16	151	30	12	30	55	29	70	0	85				8	8	0	5	2	4	6	23	6	13	3	62	



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

DIRECTION OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF THE SECOND CLASS, DURING THE MONTH OF JANUARY, 1912

## DIRECTION OF WIND FROM

STATION	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of Observations.
ALBERTA—										
Athabasca Landing .....	0	0	3	6	1	6	9	6	0	31
Halkirk (Emsburg) .....	4	1	1	9	4	17	4	22	0	62
Hillstown .....	1	5	0	6	2	10	2	23	13	62
Loveland .....	2	3	2	8	2	10	9	9	0	45
Pakan (Victoria) .....	5	2	5	1	8	15	4	11	11	62
Ranfurly (Waitefield) .....	6	3	10	14	3	4	6	25	22	93
SASKATCHEWAN—										
Chaplin .....	0	3	0	4	0	0	0	24	0	31
Crescent Lake .....	2	1	1	2	6	3	12	4	0	31
Estevan .....	0	4	0	3	2	1	8	10	3	31
Grenfell (Brownhill) .....	0	2	0	5	5	16	0	32	0	60
Indian Head .....	1	2	10	4	9	8	5	50	4	93
Larchmount (Glenbryan) .....	0	5	0	5	1	23	2	25	0	62
Moosomin .....	0	0	1	2	8	0	19	1	0	31
Muenster (St. Peter's Monastery) .....	0	4	0	8	0	27	0	23	0	62
Onion Lake .....	2	2	9	3	0	0	5	10	0	31
Pense (Gatesgarth) .....	0	1	0	8	1	2	4	15	0	31
Waseca .....	3	1	4	5	2	3	1	12	0	31
MANITOBA—										
Brandon .....	2	12	5	2	0	17	28	21	6	93
Hillview .....	0	7	4	2	1	3	11	65	0	93
Moose Horn Bay (Aitkensville) .....	15	1	0	4	9	2	3	18	8	60
Morden .....	7	1	1	3	2	10	12	21	5	62
Oak Bank .....	4	0	0	0	4	6	2	15	1	31
Stony Mountain .....	9	1	2	2	10	10	13	13	0	60
ONTARIO—										
Agincourt .....	9	11	0	6	1	34	6	24	2	93
Alton .....	6	0	11	4	10	15	42	5	0	93
Beatrice .....	1	0	0	12	14	5	2	20	39	92
Birnham .....	1	0	5	3	14	8	22	7	2	62
Clinton .....	1	2	4	5	9	9	23	9	0	62
Cottam .....	27	1	7	4	3	8	10	2	0	62
Gravenhurst .....	11	2	8	19	8	9	12	5	19	93
Lindsay .....	6	2	6	13	9	10	11	20	16	93
North Bruce .....	16	7	16	7	12	10	19	6	0	93
Orillia .....	2	3	0	2	7	8	4	5	0	31
Owen Sound .....	16	0	0	0	34	11	0	1	0	62
Point Clark .....	2	2	2	1	14	14	24	3	0	62
Port Dover .....	4	3	2	2	1	1	5	13	0	31
Scarboro Junction .....	3	3	2	1	0	5	10	3	4	31
Stoney Creek .....	11	12	2	2	0	11	23	32	0	93
Uplands .....	16	0	9	0	9	0	18	0	10	62
QUEBEC—										
Abitibi .....	19	1	16	4	10	3	38	2	0	92
Anticosti, W. Pt. .....	9	5	20	1	6	1	17	33	1	93
Anticosti, Heath Point .....	29	14	2	4	2	4	6	24	8	93
Bicquet .....	5	5	10	5	20	7	32	9	0	93
Brome .....	10	1	9	0	9	6	52	6	0	93
Cape Chatte .....	0	3	4	0	0	0	47	1	38	93
Chicoutimi .....	0	12	0	45	0	32	0	3	1	93
NEW BRUNSWICK—										
Dalhousie .....	0	2	2	1	0	6	18	1	0	30
Pt. Lepreaux .....	14	17	3	2	1	3	6	35	0	81
Sussex .....	0	5	0	1	0	1	0	7	17	31
NOVA SCOTIA—										
Kentville .....	5	0	4	1	3	2	10	6	0	21
Parrsboro' .....	0	9	0	4	0	1	1	17	0	31
Port Hastings .....	13	14	7	4	8	5	29	10	3	93
Truro .....	13	14	7	4	8	5	29	10	3	93
Whitehead .....	10	10	6	5	4	9	26	23	0	93

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
JANUARY, 1912.

STATION.	Hours Ending												
	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria .....			.09	.20	.26	.22	.22	.22	.18	.05			
Salmon Arm .....				.12	.20	.23	.25	.31	.26	.05			
Nanaimo .....				.07	.21	.21	.20	.13	.16	.09			
Vancouver .....			.04	.12	.19	.21	.23	.25	.23	.15	.06		
Agassiz .....				.20	.33	.36	.37	.31	.28	.13			
Tranquille .....		.09	.21	.24	.29	.42	.39	.31	.09				
Summerland .....			.18	.22	.27	.31	.27	.35	.29	.02			
Kamloops .....				.09	.17	.29	.37	.33	.24	.08	T		
Edmonton .....			.02	.15	.22	.38	.51	.51	.41	.15			
Lethbridge .....		.04	.23	.39	.48	.53	.51	.53	.49	.39	.03		
Lacombe .....			.12	.26	.42	.50	.58	.56	.53	.33	.05		
Medicine Hat .....			.03	.19	.27	.27	.38	.37	.31	.09			
Fort Dunvegan .....				.03	.10	.30	.35	.45	.37	.06			
Fort Vermilion .....			.01	.15	.23	.30	.41	.42	.14				
Battleford .....			.11	.41	.59	.67	.61	.60	.56	.12			
Indian Head .....			.02	.18	.33	.42	.48	.40	.33	.06			
Moosejaw .....		.01	.08	.21	.29	.35	.37	.36	.36	.16			
Scott .....		.02	.14	.29	.44	.52	.53	.56	.50	.26			
Rosethorn .....		.02	.31	.40	.12	.42	.54	.58	.45	.14			
Brandon .....		.11	.43	.62	.67	.66	.66	.64	.42	.08			
Winnipeg .....			.05	.26	.43	.61	.62	.63	.61	.45	.02		
Halleybury .....		.04	.35	.50	.60	.65	.65	.64	.63	.48	.07		
Woodstock .....		.02	.14	.28	.40	.46	.43	.42	.32	.26	.09		
Lindsay .....		.01	.11	.26	.34	.50	.42	.11	.38	.31	.09		
Barrie .....		.02	.16	.23	.36	.39	.38	.42	.34	.11			
Toronto .....			.08	.29	.38	.52	.46	.14	.42	.22	.07		
Kingston .....		.02	.17	.31	.47	.55	.54	.47	.41	.35	.12		
Ottawa .....		.03	.21	.46	.50	.61	.63	.59	.52	.27			
Montreal .....			.19	.41	.50	.50	.48	.51	.48	.36	.01		
Cap Rouge .....		.02	.17	.23	.30	.34	.41	.42	.40	.28	.01		
Quebec .....		.02	.29	.32	.42	.43	.16	.43	.15	.34	.05		
Sherbrooke .....		.02	.09	.15	.30	.38	.40	.46	.38	.28	.05		
Fredericton .....		.10	.44	.50	.60	.64	.57	.60	.54	.40	.07		
Charlottetown .....		.13	.28	.42	.45	.50	.48	.48	.52	.50	.15	.02	

	Victoria.	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosethorn.	Brandon.	Winnipeg.	Halleybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sherbrooke.	Fredericton.	Charlottetown.
Registered duration in hours .....	41	44	43	41	61	65	56	49	73	112	104	59	51	51	115	69	68	101	102	135	111	144	87	90	74	92	106	119	107	79	100	77	138	122
Percentage of possible duration .....	16	17	12	16	23	25	21	18	29	42	41	22	24	24	45	26	20	40	40	51	43	52	30	31	23	32	37	42	41	29	36	27	40	43
Difference from average % .....	-4	-	-	+5	-	-	-	-	-	-	-	-	-	-	+1	-4	-	-	+11	0	-	+9	+5	+3	+5	+12	+12	+7	-	-	-	-	+9	-
Maximum percentage in one day % .....	83	62	67	80	73	89	84	72	85	93	87	73	64	71	92	98	85	98	96	87	89	95	68	89	78	80	62	85	93	92	93	91	95	95
Date of maximum .....	7	3	30	7	7	25	16	25	2	19	19	28	29	10	2	11	6	11	2	20	9	10	13	28	25	12	13	10	13	25	25	11	25	11
Number of days completely clouded .....	16	16	22	29	16	11	14	15	10	6	5	9	12	14	4	7	10	9	8	5	8	6	8	12	13	9	11	8	9	12	10	14	9	7

*Aurora recorded:*

- 1.
- 2.
3. Sion.
4. Sion.
5. Sion, Prince, Bella Coola III.
- 6.
7. Grand Manan IV.
- 8.
9. Sion.
10. Sion, Aweme IV, Fort Qu'Appelle IV, Oliver, Haileybury IV.
11. Cartwright IV, Sion IV, Hillsdown IV, Halkirk, Waitefield IV, Aweme III, Schreiber IV, Kakabeka Falls III, Haliburton (very bright), Bruce Mines IV, Oliver, Quebec IV, Haileybury III.
12. Emsdale III, Schreiber IV, Lucknow IV, Kakabeka Falls IV, Haliburton (very bright), Bruce Mines IV, Mistassini IV, Divide III, Glenbryan I, Quebec IV, Haileybury III.
13. Haliburton (very bright), Chicoutimi.
14. Sion.
15. Sion.
16. Sion, Brantford IV.
17. Sion, Halkirk, Waitefield III, Chagoneess III, Aitkensville IV, Aweme I, Kakabeka Falls IV, Brownhill, Fort Qu'Appelle IV, Muenster IV, Oliver, Waseca.
18. Sion, Oliver.
19. Sion.
20. Sion.
21. Sion, Chagoneess IV.
22. Halkirk, Aweme IV, Minnedosa III, Crescent Lake III.
23. Chagoneess IV, Kenora IV.
24. Sion, Kakabeka Falls III, Lindsay IV.
- 25.
26. Haliburton (bright).
- 27.
- 28.
- 29.
30. Waitefield IV.
31. Sion.

*Thunder recorded:*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
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- 9.
- 10.
- 11.
- 12.
- 13.
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- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
22. Vernon, St. Stephen, Kingston.
- 23.
- 24.
- 25.
26. Port Dover, Lucknow, Georgetown, Southampton.
- 27.
- 28.
- 29.

## FORECASTS FOR JANUARY 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1206 These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	81	67	11	3	89.5
Saskatchewan.....	83	74	9	0	94.5
Manitoba.....	83	64	12	7	84.3
Lake Superior.....	99	81	15	3	89.4
Lower Lake Region.....	114	95	16	3	99.3
Georgian Bay.....	114	83	23	8	82.9
Ottawa Valley.....	95	78	12	5	88.4
Upper St. Lawrence.....	95	78	11	6	87.9
Lower St. Lawrence.....	101	88	10	3	92.1
Gulf.....	109	93	13	3	91.3
Maritime Provinces West.....	117	91	16	10	84.6
Maritime Provinces East....	115	90	20	5	86.9
Total .....	1206	982	168	56	88.4

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,  
February 26, 1912.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

FEBRUARY, 1912

No. 2

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

On southern Vancouver Island and at the mouth of the Fraser the mean temperature of the month did not differ very much from normal, although there was a general but small positive departure. In the Kootenays, the Okanagan Valley and along the Thompson River the excess was more pronounced, ranging between 3° and 6°. Along the Upper Fraser the maximum differences from average occurred, ranging from 6° to 9°.

Temperatures below zero were reported from the Upper Fraser and the North Columbia River only. A temperature of 61° was recorded at Alberni on South Vancouver Island on the 29th, while 55° or higher occurred on the 9th and 15th in the same district. In Southeast Kootenay 53° were registered on the 20th, and at Prince Rupert 62° on the 1st. Elsewhere the temperature did not exceed 50° during the month.

### THE WESTERN PROVINCES.

At Banff the normal mean temperature of February was exceeded by less than 6°, but over the greater part of Alberta there was a positive departure from normal which ranged from 10° to 13°.

Temperatures of 50° were recorded on the 1st, 2nd, 3rd, 13th, 15th and 16th at many places in the basins of the Red Deer and Bow Rivers. In many districts temperatures did not fall below zero until the last two days of the month, but the change to colder conditions was sudden, and severe also, as minima of 20° to 35° below zero indicate.

In Saskatchewan and Manitoba, also, the month was much warmer than usual, the mean temperatures exceeding the normal by from 6° to 9°. For the first ten days, however, the minimum temperatures were very low, ranging as far as 38° below zero on the 8th. From the 10th to the 25th much milder conditions obtained, 40° being exceeded on the 15th, 17th and 18th in a few localities. The last two days of the month were very cold.

### ONTARIO.

Except in the District of Thunder Bay the month was colder than usual throughout the Province of Ontario. From the District of Algoma to Lake Erie the difference from average increased from less than 1° to 8° or 9°. Temperatures below zero were of frequent occurrence during the first fourteen days and in the Georgian Bay counties were very low, minima ranging between 30° and 40° below on the 9th and 10th. From the 14th to the 27th intervened the mildest period, which was terminated on the evening of the 27th by a return to zero temperatures, with which the month ended.

## QUEBEC.

From Montreal as far as Quebec City mean temperatures were 1° to 2° lower than the normal, but from Quebec eastwards the deviation from normal was positive, increasing to from 5° to 7° in the Gulf of the St. Lawrence. From the 9th to the 16th temperatures below zero were recorded daily, and less frequently from the 23rd to the 29th. From the 16th to the 22nd the air was warmer than the freezing point in most districts, the maximum temperatures of the month being registered about the latter date, and in but few instances exceeding 40°.

## THE MARITIME PROVINCES.

At Dalhousie on Chaleur Bay the mean temperature was more than 6° higher than normal, but further south in the same province, at Chatham on Miramichi Bay, the difference was only 3°, while in Southern New Brunswick and in Nova Scotia, as well as in Prince Edward Island, there was very little deviation from average, stations on the Bay of Fundy showing a small excess over average temperature and the Nova Scotian stations a very small deficiency.

*The highest and lowest temperatures recorded in each province during the month of February, 1912, were:*

	HIGHEST.	LOWEST.
British Columbia .....	62° at Prince Rupert on the 1st,	-16° at Ft. St. James on the 29th.
Alberta .....	54° at Didsbury on the 1st & 14th,	-34° at Paken on the 7th and at Athabasca Landing on the 7th and 29th.
Saskatchewan .....	48° at Chagoneess on the 16th,	-38° at Prince (Meota) on the 8th.
Manitoba .....	50° at Ninette on the 24th,	-40° at Berens River on the 2nd.
Ontario .....	48° at Sarnia on the 18th,	-54° at White River on the 10th.
Quebec .....	45° at Chicoutimi on the 23rd,	-38° at Manouan Dam on the 11th.
New Brunswick .....	48.7° at Grand Manan on the 22nd,	-29.5° at St. Stephen on the 10th.
Nova Scotia .....	51° at Pt. Hastings on the 20th and—	-27.8° at Truro on the 12th.
P. E. Island .....	42.5° at Charlottetown on the 22nd,	-16° at Charlottetown on the 11th.

## PRECIPITATION.

### BRITISH COLUMBIA.

Throughout British Columbia the amount of precipitation was less than average, except for local excess in Central Vancouver Island and at Agassiz on the Lower Fraser River. This last instance was remarkable in that twice the average precipitation was recorded at Agassiz, while all other gauges on the Lower Fraser showed a deficiency of about 1 inch. The snowfall on the Upper Fraser was very scanty, and was in most instances less than 7 inches.

## THE WESTERN PROVINCES.

In many districts there was only a flurry of snow during the month, while in the majority of the other portions of the Western Provinces the fall was large enough to measure on three days only.

### ONTARIO.

Along the Upper St. Lawrence and the Upper Ottawa the usual amount of precipitation was more nearly recorded, while over the remainder of Ontario the deficiency was general and pronounced.

## QUEBEC.

At Montreal, in southwestern counties, and at Father Point there was a small excess, but over the remaining districts of the province there was a deficiency which in most cases was equivalent to 20 per cent. of the normal amount.

## THE MARITIME PROVINCES.

The deficiency in Northern New Brunswick was very small, but elsewhere in the Maritime Provinces from 30 to 50 per cent. less than the normal was recorded.



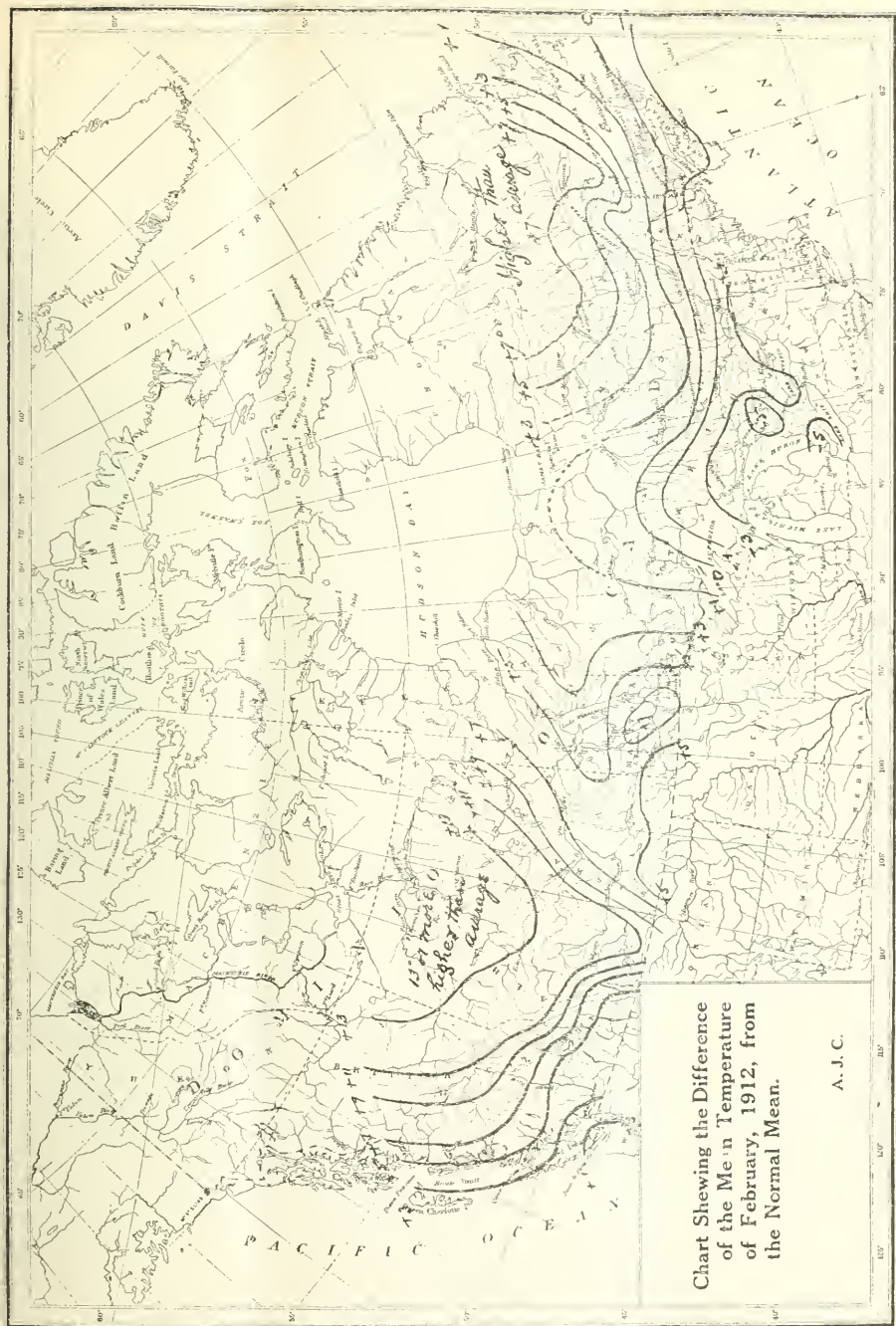


Chart Shewing the Difference  
of the Mean Temperature  
of February, 1912, from  
the Normal Mean.

A. J. C.

## ATMOSPHERIC PRESSURE.

Mean values of atmospheric pressure were higher than average in British Columbia, and locally, only, in Saskatchewan. Elsewhere in the Dominion they were lower. Mean pressures in the Maritime Provinces were in most instances less than normal by about twenty hundredths of an inch, and in Ontario and Quebec by from five to eighteen hundredths. In British Columbia the excess ranged between three hundredths and one-tenth of an inch.

## HIGH AREAS.

Seven areas of high pressure were charted. One first appeared in the Yukon Territory; three to the northward of Manitoba and three in the North Pacific States. One area ultimately passed off our Atlantic coast, thence over Newfoundland; one off the Middle Atlantic United States coast; one off the South Atlantic coast; two into the Gulf of Mexico, while the remaining two broke up before reaching the Atlantic seaboard. The systems were not, as a rule, very energetic, but for the most part they were attended by much cold weather.

## LOW AREAS.

Eleven areas of low pressure were charted. Two first appeared on the Alaskan coast, three on the coast of Northern British Columbia, one in the Western States, four in the Southwestern States, and one to the northward of Lake Superior. Five of the areas passed over the Great Lakes, one to the northward and five to the southward of the Great Lakes—thence over Eastern Canada and Newfoundland. A few of the systems displayed great energy, attended both by heavy precipitation and heavy gales. The larger number were, however, of moderate energy only.

## DEPTH OF SNOW ON THE GROUND.

The snow had disappeared from the coast and the lower mainland of British Columbia at the close of the month, while on the high levels the depth was in most places less than at the same time last year. The average depth in the Western Provinces was five inches, but in Northeastern Saskatchewan and in the District of Keewatin it ranged from fourteen to twenty-four. In Northern Ontario, the Ottawa Valley and Muskoka there were from twenty to thirty six inches of snow upon the ground, but in the remainder of the province from six to ten inches. In Quebec the depth varied from twenty-six inches at Montreal to sixty inches in Gaspé county. In Cape Breton Island and Prince Edward Island a depth of twenty-four to thirty inches was registered, but in the remainder of Nova Scotia and in Southern New Brunswick, from four to eight inches only. In Northern New Brunswick the depth varied from three to four feet.

## THICKNESS OF ICE.

At the close of the month the thickness of ice was reported as follows:

WESTERN PROVINCES.—Battleford, 27 inches; Swift Current, 38; Moose Jaw, 32; Qu'Appelle, 26; Minnedosa, 21.

KEEWATIN.—The Pas, 25 inches.

ONTARIO.—Port Arthur, 10 inches; Cochrane, 28; Port Stanley, 30; Kingston, 23; Ottawa, 32; Gravenhurst, 12; Georgetown, 14; MacCue, 20; Port Dover, 28; Bruce Mines, 19.

MARITIME PROVINCES.—Chatham, 19.5 inches; Yarmouth, 14; Sydney, 16; Charlottetown, 20; Fredericton, 28.



## WINDS, FEBRUARY, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gale.	Number of days of strong Winds.	Number of days of Fresh Winds.	GENERAL Direction
BRITISH COLUMBIA.							
Victoria .....	5459	457	27	0	9	7	N.
Point Garry .....	5365	566	51	3	4	15	N. & E.
ALBERTA.							
Edmonton .....	3418	261	18	0	1	4	SW.
Calgary .....	3370	262	25	0	2	3	SW. & W.
SASKATCHEWAN.							
Battleford .....	4273	343	18	0	1	10	NW.
Saskatoon .....	5203	265	14	0	0	5	NW.
MANITOBA.							
Winnipeg .....	7090	481	27	0	11	8	W.
The Pas .....	4235	305	...	...	...	...	W.
ONTARIO.							
Port Arthur .....	6379	488	38	1	4	11	NW.
Peterborough .....	4435	409	25	0	4	4	SW.
Southampton .....	7782	720	45	4	6	8	S.
Windsor .....	6144	510	...	...	...	...	NW.
Quebec .....	6264	643	...	...	...	...	NW.
Toronto .....	10025	851	59	5	10	6	SW & NW
QUEBEC.							
Quebec .....	12274	1058	61	10	2	4	SW.
Father Point .....	13512	960	46	14	9	2	W.
MARITIME PROVINCES.							
Fredericton .....	7975	642	55	2	15	7	W & NW.
St. John .....	9712	951	55	8	10	4	NW.
Point Lepreau .....	146.0	1208	59	15	10	1	NW.
Halifax .....	8957	732	44	5	12	7	NW.
Sable Island .....	16644	951	...	...	...	...	NW.
Flat Point .....	12279	974	57	9	15	3	NW.
Charlottetown .....	4988	595	55	1	6	6	SW.

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1912.

\*Stations not furnished with Registering Thermometers.

STATIONS NOT FURNISHED WITH REGISTERING THERMOMETER.																		
STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION.								
				Mean.	Difference from average.	Yrs. Observations.	Highest.	Day.	Lowest.	Days.	Mean daily rate.	Amount.	Difference from average.	Heaviest fall in month.	Days with 30 or more.	No. of fair days.	No. of auras.	No. of thunderstorms.
BRITISH COLUMBIA.																		
S. Vancouver Island.																		
Alberni (Beaver Creek)	49 15	124 49	290	39.4	—	16	61.0	29	21.0	—	13.7	9.77	+0.95	1.76	16	13	—	—
Clayoquot	49 11	125 47	40	43.8	+ 3.2	12	55.5	9	21.0	—	11.4	17.39	+4.61	3.51	19	10	—	—
Cowichan (Tzohalem)	48 05	123 42	170	49.9	—	6	54.5	15	32.5	—	17.8	4.55	—	0.87	18	11	—	—
Ladner	49 05	123 4	—	44.0	+ 1.1	12	56.0	15	32.5	—	11.7	3.80	—0.03	0.60	11	18	—	—
Nanaimo	49 10	123 3	125	49.5	+2.0	11	53.2	13	26.0	—	11.5	3.54	—1.60	0.94	14	15	—	—
Salt Spring Island	48 50	123 29	—	41.5	—	3	53.0	3	31.5	—	11.7	4.11	—	0.83	17	12	—	—
Sooke	48 41	123 44	25	42.1	—	2	57.0	1	25.0	—	13.6	5.29	—	0.92	12	17	—	—
Victoria	48 21	123 19	85	45.0	+ 1.4	18	53.9	9	25.5	—	10.5	3.14	—0.13	0.62	17	12	—	1
N. Vancouver Island.																		
Holberg	50 20	128 18	—	41.3	—	3	47.8	7	24.0	—	6.5	15.44	—	2.36	20	9	—	—
Swanson Bay	50 35	126 33	—	38.3	—	4	55.6	15	25.0	—	9.4	19.20	—	2.78	20	9	—	—
Triangle Island	50 53	129 5	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Winter Harbour (Quat. 1900)	50 42	127 40	—	41.6	+ 3.4	16	59.0	21	28.0	—	12.1	8.03	—1.82	1.00	18	11	—	—
Lower Fraser River.																		
Agassiz	49 14	121 31	52	41.8	+ 4.4	20	41.0	0	28.0	—	17.8	10.64	+6.93	1.28	16	13	—	—
Chilliwack	49 10	121 57	21	41.7	—	23	53.0	1	16.0	—	11.2	5.43	—	0.74	19	10	—	—
Dop	49 35	121 25	38.3	—	—	2	49.0	8	22.0	—	12.1	5.08	—	1.19	12	17	—	—
New Westminster	49 13	122 54	330	40.0	+ 1.9	25	51.5	11	25.0	—	11.4	6.90	—0.96	1.15	16	13	—	—
North Nicome	49 19	122 2	39	43.1	+ 5.1	20	54.0	1	22.0	—	11.4	6.5	—1.43	0.98	16	13	—	—
Pendleton Hatchery	50 20	122 33	—	36.0	—	4	47.0	18	15.0	—	17.0	1.59	—	0.38	6	23	—	—
Port Moody (Stave Falls)	49 16	122 23	125	44.2	—	3	50.0	7	15.0	—	9.9	6.74	—	1.60	18	11	—	—
Steverson (Garry Point)	49 21	123 17	—	39.8	+ 1.5	17	53.0	8	24.0	—	11.1	3.30	—0.78	0.43	15	14	—	—
Vancouver	49 17	123 5	156	40.9	+ 2.5	11	52.9	7	25.5	—	9.2	6.25	—0.53	1.10	17	12	—	—
Upper Fraser River.																		
Babine Lake	55 28	126 26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barkeville	53 02	121 35	4180	25.1	+ 5.6	22	42.0	11	5.0	—	15.7	1.31	—1.30	0.20	11	18	—	—
Chiloutin (Big Creek)	51 40	123 0	3160	23.7	—	8	36.0	13	5.0	—	15.8	0.20	—	0.10	3	26	—	—
Fort St. James (Stuarts Lake)	54 28	124 12	2250	20.9	+ 7.5	17	53.0	18	16.0	—	12.1	0.70	—1.74	0.14	9	20	—	—
Quesnelle	52 59	122 30	1700	28.5	+ 9.7	15	48.0	17	11.0	—	21.3	0.55	—0.56	0.15	6	23	—	—
Okanagan Valley.																		
Enfievre	49 11	119 36	—	35.2	—	3	39.0	15	16	—	12.5	0.08	—	0.04	3	26	—	—
Helley	49 35	120 10	—	33.6	—	8	48.0	8	21	—	10.2	3.16	—	1.40	9	20	—	—
Helley (Nickel Plate)	—	—	—	32.8	—	9	42.0	5	7.0	—	15.0	2.25	—	0.80	10	19	—	—
Okanagan M. son (Kelowna)	49 59	119 29	1200	30.8	+ 7.1	12	46.0	19	5.0	—	11.6	1.55	+0.47	0.25	10	19	—	—
Penticton	49 29	119 35	33.0	—	—	5	49.5	16	13.5	—	12.5	0.76	—	0.21	9	20	—	—
Princeton	49 29	120 29	1650	27.9	+ 3.7	17	46.0	15	—	—	19.7	0.76	—0.26	0.15	5	20	—	—
Summerland	49 57	119 0	1100	31.0	—	5	45.0	16	10.0	—	12.1	0.86	—	0.25	5	21	—	—
Vernon (Goldstream Ranch)	50 14	119 15	1246	28.0	+ 0.1	19	42.0	11	19	—	12.8	0.92	—0.21	0.22	8	21	—	1
West Kootenay.																		
Frutvale	49 9	117 31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grand Forks	49 2	118 27	—	29.6	—	1	45.0	14	5.0	—	14.0	1.55	—	0.32	12	17	—	—
Greenwood	49 5	118 49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Needles	49 40	118 9	—	31.7	—	3	44.0	11	19	—	7.0	0.70	—	0.20	4	25	—	—
Nelson	49 29	117 21	1760	32.2	—	11	45.0	19	9.0	—	12.5	1.74	—	0.30	11	18	—	—
Rossland	49 5	117 48	3400	31.1	—	8	39.0	11	16	—	10.0	1.77	—	0.45	12	17	—	—
East Kootenay.																		
Boxwell	49 19	116 41	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cranbrook	49 30	115 50	—	29.8	—	7	43.0	15	3.0	—	17.6	0.20	—	0.20	1	28	—	—
Galena Plains (Elton)	49 1	115 5	2684	30.2	+ 1.7	17	53.0	20	3.0	—	16.1	1.17	—0.08	—	3	26	—	—
Wahner	50 31	116 14	—	24.7	—	2	42.0	12	0.0	—	19.3	0.13	—	0.09	—	—	—	—
Thompson River.																		
Island	50 39	119 7	1180	29.3	+ 1.1	11	46.0	14	0.0	—	16.3	1.25	—0.48	0.30	8	21	—	—
Kamloops	50 41	120 29	1245	31.3	+ 3.5	20	48.8	16	5.2	—	12.5	0.62	—0.19	0.17	7	22	—	—
Nelson Lake	50 9	120 39	2120	30.0	+ 6.9	17	46.0	16	10.0	—	12.5	0.83	+0.06	0.77	2	27	—	—
Sullivan Arm	50 42	119 35	1162	24.1	+ 3.8	10	45.0	11	19	—	2.0	1.18	—	0.23	12	17	—	—
Tranquille	50 41	120 29	—	32.1	—	4	49.0	15	2.0	—	11.5	0.36	—	0.12	4	25	—	—
North Columbia River.																		
Golden	51 16	116 55	2530	23.8	—	9	48.0	12	11.0	—	19.5	0.45	—	0.20	3	26	—	—
Gleichen	51 14	117 24	4672	23.8	—	11	44.0	9	17	—	9.7	0.70	+0.48	0.80	8	18	11	—
Revelstoke	51 0	118 6	1476	31.1	—	12	46.0	19	6.0	—	11.2	3.32	—1.36	0.65	17	12	—	—

\* Stations not furnished with Registering Thermometers

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1912.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.								PRECIPITATION.										
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.			
<b>SASKATCHEWAN—</b>																						
<i>Qu'Appelle River</i>																						
Brownhill (Greenfield)	50 23	102 53	1957	8.1	+ 7.0	12	31.0	15	-30.0	4	21.4	0.30	-0.02	0.20	2	27			8			
Brownlee	50 45	106 0																				
Crescent Lake	50 59	102 25	1658	4.2	—	14	31.0	16	-26.8	9	23.3	0.30	—	0.22	5	24	1		5			
Estevan	49 12	103 4	1835	8.1	—	8	33.0	11-17	-24.0	29	16.2	0.40	—	0.20	1	20			1			
Harbard (Drummond)	51 10	103 30		—	—	3	30.0	16	-27.0	3-9	19.6		—	—								
Humboldt	52 12	105 9		-3.1	—	4	28.0	21	-36.0	11-11	26.0		—	—								
Imperial	51 22	105 23		2.5	—	1	34.0	15	-36.0	9	29.2		—	—								
Indian Head	50 28	103 40	1924	7.4	+ 7.5	22	35.0	15	-26.0	3	20.1	0.15	-0.27	0.12	2	27						
Manor	49 43	102 2	2064																			
Moose Jaw	50 21	105 35	1759	6.8	+ 3.7	17	38.3	16	-32.0	4	21.0	0.17	—	0.10	4	25						
Mossburn	50 0	101 37	1884	6.2	+ 7.7	10	37.0	15	-24.0	3-9	15.6		—	—								
Muenster (St. Peter's)	52 0	105 0	1870	3.3	—	7	31.0	15	-27.0	29	19.1	0.30	—	0.20	3	26						
Pilger	52 32	105 8		4.5	—	1	37.0	15	-31.0	9	22.6	0.11	—	0.10	8	21						
Pegase (Gatesgarth)	50 30	103 0	1879	7.7	+ 5.1	14	36.0	15	-30.0	29	22.9	0.27	—	0.10	5	24			4			
Qu'Appelle	50 30	103 17	2115	7.7	+ 6.4	27	37.0	15	-26.0	3	16.1	0.16	-0.77	0.06	4	25						
Quill Lake	52 4	101 14	1900	2.1	—	1	31.0	17	-32.0	3	20.4	0.49	—	0.35	2	27						
Rosina	50 27	114 37	1853	6.4	+ 8.7	26	33.0	15	-27.0	3-4	19.5	0.11	-0.21	0.05	4	25						
Yarbo (Fairfield)	50 39	102 4																				
Yellow Grass	49 19	104 9		8.9	—	1	34.0	16	-25.0	29	18.3		—	—								
Yorkton	51 11	102 29																				
<i>S. Saskatchewan River</i>																						
Chaplin	50 26	106 39	2202	7.4	+ 5.2	26	34.0	14	-33.0	29	21.6	0.07	—	0.02	6	23						
East End	49 31	108 49		15.7	—	5	41.0	14-17	-22.0	29	18.2		—	—					2			
Kelvinhurst	49 31	109 29																				
Lamont (Hendry)	49 54	107 27		10.1	—	2	37.7	15	-28.0	3-9	23.1	0.10	—	0.05	3	26	3					
Maple Creek (Divide)	49 55	108 28	3500	16.1	—	6	38.8	17	-23.0	9	15.4	0.47	—	0.15	8	21			5			
Oliver	51 46	108 10		8.1	—	1	39.0	15	-31.0	6	20.6	0.50	—	0.20	3	28	5	1				
Rathmillen	51 20	108 57		10.0	—	2	30.0	24	-35.0	8	23.9	0.15	—	0.05	4	25						
Swift Current	50 20	107 45	2439	13.9	+ 5.3	26	36.0	14-15	-22.0	29	15.0	0.12	-0.23	0.12	8	21						
<i>N. Saskatchewan River</i>																						
Battleford	52 41	108 20	1620	9.6	+ 9.0	21	37.0	15-16	-28.0	3	18.3	0.01	-0.42	0.01	1	28						
Lloydminster	53 18	110 0		7.2	—	1	34.8	14	-37.0	8	20.1	0.30	—	0.20	2	27			5			
Luseland	52 5	105 34		5.7	—	5	41.0	17	-35.0	8-29	28.0	0.20	—	0.20	1	28						
Onion Lake	53 52	109 59		5.1	—	6	38.0	15	-38.0	8	24.6	0.20	—	0.20	1	28						
Prince (Meota)	51 6	108 20	1700	3.3	—	1	36.5	15	-33.1	8	24.2	0.08	—	0.05	2	27						
Scott (Ex. Farm)	51 59	109 30		9.3	—	5	34.0	15-17	-31.0	29	20.5	0.23	—	0.05	6	23						
Waseca	53 6	109 29																				
<i>The Saskatchewan Forks</i>																						
Chapinoss	52 32	104 13		6.4	—	1	48.0	16	-31.0	3	20.7	0.55	—	0.20	4	25						
Duck Lake	52 54	106 20																				
Melfort	52 47	104 30		4.6	—	3	40.0	15	-25.5	4	19.3	0.40	—	0.20	3	26						
Prince Albert	53 10	106 0	1472	6.7	+ 7.1	27	41.0	15	-31.0	3	20.7	0.10	-0.63	0.10	1	28						
Rosthern	52 40	106 20	1657	5.5	—	2	39.3	16	-27.8	4	21.4	0.20	—	0.20	1	28			5			
Saskatoon	52 15	106 30	1571	7.2	+ 7.8	12	34.0	16	-32.0	1	21.7	8	-0.42	—	0	23						
<i>Lower Saskatchewan River</i>																						
Lost River				2.5	—	1	38.0	16	-25.0	3	18.0		—	—								
Cumberland House	53 56	102 16																				
<b>MANITOBA—</b>																						
<i>Qu'Appelle and Assiniboine Rivers</i>																						
Avenue (St. Albans)	49 42	99 35	1180	7.6	+ 8.9	28	43.5	16	-27.0	9	21.9	0.20	-0.52	0.07	10	19	3					
Brandon	49 51	99 37	1176	5.0	+ 5.7	24	33.9	15	-30.2	29	19.2	0.50	-0.56	0.10	3	26						
Carberry	49 31	98 20	1255																			
Carman	49 31	98 0	872																			
Cypress River	49 33	99 3	1232																			
Hillview	49 55	100 33	1400	5.8	+ 8.1	26	34.0	15	-21.0	3-9	16.1	0.25	-0.62	0.20	2	27						
Manitowish	50 15	99 53	1690	6.8	+ 6.2	28	34.0	16	-27.6	9	18.7	0.46	-0.11	0.11	7	22						
Ninette	49 24	99 38	1362	12.0	—	1	50.0	24	-21.0	4-9	24.3	0.15	—	0.15	1	28						
Nineta	49 14	99 51	1649	—	—	2	39.7	16	-20.0	29		0.59	—	0.27	3	26						
Pierson	49 11	101 5	1531																			
Provenance	49 31	107 58	1430																			
Portage la Prairie	49 57	98 17	820	5.9	+ 4.2	23	39.0	17-18	-21.0	8	19.8	0.15	—	0.15	1	28						
Portage la Prairie (2)	49 56	98 17																				
Truherne	49 36	98 40	1212	7.8	+ 7.9	17	37.0	16	-21.0	9	18.6	0.32	-0.56	0.10	8	21						
Virden	49 51	100 55	1444																			
<i>The Red River</i>																						
Almasippi	49 14	98 20		7.9	+ 11.8	40	42.0	16	-28.0	9	19.7	0.20	—	0.01	2	27						
Morden	49 11	98 6	978	8.4	—	8	41.0	17-18	-31.0	9	18.8	0.85	—	0.30	4	25						
Onk Bank	49 57	96 42	800	3.9	+ 6.2	15	34.5	17	-29.7	9	15.9	0.05	-2.41	0.05	1	28						
Stony Mountain	50 40	97 14	803	2.5	—	31	37.0	18	-28.0	9	22.5	0.05	-0.82	0.05	1	28						
Winnipeg	49 53	97 7	760	6.5	+ 7.5	38	38.4	17	-25.6	9	15.4	0.15	-0.51	0.12	3	26			2			

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1912.

\* Stations not furnished with Registering Thermometer.

STATION	Latitude N.	Longitude W.	Precipitation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.									
				Mean.	1 in. more from average.	Yr's observations.	Highest.	Date.	Lowest.	Light.	Mean daily range.	Average.	Difference from average.	Highest fall in month.	Days with 01 or more.	(No. of fair days.)	No. of auroras.	No. of cyclones.	No. of fogs.
MANITOBA—Continued																			
Dauphin Lake and River																			
Dauphin	51 8	100 2	957	7.5	—	7	40.0	16	-2.5	16	41.6	7	—	8	1	2			
Moose Horn Bay (Arknessville)	51 15	99 23		2.0	—	2	38.0	15	-22.5	15	40.3	0.52	—	10	10	7	2	5	2
Brecons River	52 18	97 23	716	-4.7	—	6	32.0	17	-41.0	17	30.8	0.40	—	10	25	3	26		
Lake Winnipegosis																			
Swan River	52 6	101 15	1112	3.5	—	4	35.0	17	-29.0	17	30.1	0.35	—	0	20	2	27		
Le Pas	53 49	101 15	860	-2.3	—	2	34.0	16	-24.0	16	35.1	0.11	—	0	14	5	24		
ONTARIO—																			
The Lake Superior Districts																			
Rainy River																			
Kenora	49 48	94 32	1102	0.5	-2.9	17	29	14	-27.5	14	36.6	—	—	—	1	—			
Thunder Bay																			
Kakabeka Falls	48 2	81 26	912	3.1	—	4	37.0	16	-7.0	16	29.6	0.85	—	0	9	8	21	1	
Port Arthur	48 2	81 12	644	8.5	+1.1	31	36.0	15-28	-27.0	15	29.6	0.25	-1.18	0.16	—	12	1		
Scarboro	48 5	87 15	533	4.6	—	12	35.7	19	-3.1	19	25.0	0.40	—	0	25	—	26	1	2
Algonquin																			
Bruce Mines	46 18	83 55	535	10.1	-3.5	14	44.0	24	-42.0	10	27.0	0.90	1.25	0.29	7	12			
Copper Cliff	46 50	80 39		8.9	—	5	35.0	19	-25.0	10	19.8	0.63	—	0	10	3	26		
Porcupine	48 29	81 18																	
Providence Bay	45 40	82 14		10.0	—	1	37.0	24	-41.0	10	29.8	1.23	—	0	0	3	26		1
White River	48 35	85 16	1252	1.0	-0.2	23	34.0	18	-54.0	10	24.4	0.90	-0.55	0.40	3	26			
Nipissing																			
Cochrane	49 2	81 0	946	3.2	—	2	33.5	18	-21.0	10	19.0	0.81	—	0	20	4	25		
Haileybury	47 29	79 39	657	9.3	+0.3	17	36.0	18	-25.5	10	19.3	2.12	0.18	0.10	15	11			
Montreal River	47 8	79 28					47.0	18	—			2.45	—	1	19	7	2		
Upper Ottawa River																			
Lake Talon (Rutherford)	46 15	78 48		8.6	-2.4	17	32.2	18	-22.5	10	17.1	1.75	-0.05	0.70	9	20	1		
Stonehill (Ruckhiffe)	46 9	78 6	557	7.4	—	1	34.1	24	-25.0	11	24.9	3.21	-1.56	0.64	12	11			
Upper St. Lawrence and Lower Ottawa																			
Kingston	44 13	76 29	285	17.8	-2.7	37	38.8	19	-24.2	10	18.0	1.45	-0.14	0.56	13	17	1		
Montague	44 55	75 57		11.1	—	2	29.0	1	-32.0	17	22.4	1.60	—	1	0	1	26		
North Gower	46 8	75 43																	
Ottawa	45 25	75 42	294	11.5	-2.0	29	45.0	17-18	-2.0	17	17.5	0.84	0.13	1.04	12	15			
Renfrew	45 29	75 39	415	10.3	—	23	40.4	24	-30.5	11	23.2	2.05	0.67	0.10	11	18			8
Georgian Bay Counties																			
Barrie	44 33	79 41	819																
Beatrie	45 8	79 29	800	10.9	-3.2	36	42.0	18	-36.0	10	1.6	2.55	-0.55	0.55	7	12			
Coldwater	44 38	79 40	609	11.1	-2.3	23	45.0	19	-41.0	10	18.1	1.55	-2.71	0.35	11	18			
Collingwood	44 31	80 2		15.8	-2.5	18	45.0	20	-25.0	10	15.1	2.15	—	0.81	5	24			
Gravenhurst	44 54	79 20		9.7	-5.9	41	41.0	19	-41.0	10	15.1	2.25	-0.05	0.50	11	18			1
Huntsville	45 19	79 8		10.4	—	6	37.0	19	-35.0	10	19.4	—	—	—	—	—			
*Midland	44 41	79 51	750									2.50	—	0.60	5	24			
Orillia	44 37	79 24	775	13.4	-2.3	20	41.0	19	-32.0	10	14.9	—	—	—	—	—			
Owen Sound	44 34	80 55	537	—	—	32	40.0	19	—			3.70	+1.11	0.60	0	—			
Perry Sound	45 19	80 0	625	11.1	-2.8	36	43.0	18	-31.0	10	14.8	2.60	+0.13	0.70	11	16			
Rosville	45 16	78 57	1638	8.3	—	5	45.0	18	-42.0	0	25.7	1.10	—	0.43	1	4			
Shelburne	44 5	80 47		12.0	—	3	39.0	19	-28.5	10	17.1	2.55	—	1.61	9	20			
Uplands	45 48	79 25		8.5	—	25	43.0	18	-15.0	10	24.8	2.01	-0.55	0.60	10	19			
Lake Huron Counties																			
Birnham	43 2	81 55	600	14.2	-3.1	21	40.4	18	-24.0	10	14.1	2.35	0.73	0.53	8	21			
Clinton	43 32	81 37		11.5	—	9	47.0	20	-25.0	10	17.2	1.59	—	0.39	10	19			
*North Bruce	44 32	81 25		15.4	-4.5	21	42.0	18	-32.0	10	—	2.19	-0.33	0.12	17	12			
Point Clark	44 3	81 45	565																
Sarnia	42 59	82 24	256	15.5	—	18	48.0	18	-21.0	10	—	0.80	1.48	0.40	3	20			
Southampton	44 30	81 21	656	15.0	-4.2	35	38.0	19	-24.3	10	15.0	3.72	+0.76	0.55	20	9	1		
Lakes St. Clair & Erie, Niagara Peninsula																			
Chatham	42 23	82 12	575	17.8	-5.4	26	45.0	18	-18.8	10	17.6	2.05	-0.47	1.03	5	24			
Cortland	42 7	82 45	395	14.6	-9.9	24	42.0	18-24	-25.6	9	16.7	2.10	-1.70	0.60	10	17			
Grimsby	43 17	79 36		18.8	—	3	44.6	25	—	10	14.6	—	—	—	—	—			
Pelee Island	41 55	82 32	595	—	—	33	—	—	—	10	17.4	—	—	—	—	—			
Port Burwell	42 36	80 55	502	10.2	—	8	41.0	18	-15.5	10	14.8	1.91	—	—	—	—			
Port Dover	42 27	80 13	635	13.8	-1.8	37	40.5	24	-19.5	10	15.2	2.85	-0.19	0.75	15	14			
Port Stanley	42 40	81 12	562	16.5	-1.9	37	40.0	25	-20.0	10	18.0	2.81	0.17	0.98	11	15			
St. Catharines	43 9	79 17	347	20.1	—	1	43.5	18-25	-10.0	9	16.7	—	—	—	—	—			
Stoney Creek	43 11	79 45	292	18.1	-3.5	27	43.0	25	-17.0	10	11.1	1.25	-1.81	0.94	3	25			
Wellandburg	42 25	82 24		14.5	—	6	41.0	18	-22.0	9	16.5	2.39	—	1.00	11	14			
Welland	42 59	79 17	577	18.4	—	5	42.0	24	-12.0	12	15.4	1.05	-3.54	0.57	5	24			
Windsor	42 20	81 4	625	15.9	-5.5	36	42.0	25	-12.0	11	16.1	1.55	0.82	0.30	6	23			

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1912

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION								
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Days.	Mean daily range.	Amount.	Difference from Average.	Heaviest fall in month.	Days with 1/4 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
ONTARIO—Continued—																		
West-Central Counties																		
Alton	43 51	80 5	1250	10.2	- 7.0	25	42.0	19	-32.2	10	20.3	1.77	+0.15	0.50	10	19		2
Bramford	43 10	80 21	750	15.1	- 4.8	22	42.0	19	-16.0	9	15.1	0.70	-1.12	0.70	1	28		
Guelph	43 33	80 16	1050	15.6	- 3.2	24	39.0	18	-21.6	10	14.6	0.80	—	0.50	3	26		
London	42 53	81 13	805	16.5	- 4.4	28	43.5	18	-20.0	10	17.9	2.22	-1.85	0.60	8	21		
Paris	43 12	80 25	840	17.6	—	23	42.0	19	-17.0	10	16.2	0.31	+0.41	1.40	6	23		
Stratford	43 23	81 0	1100															
Woodstock	43 8	80 47	580	15.0		38	39.3	19	-15.0	10	15.8	0.37	-1.89	0.18	5	24		
Lake Ontario Counties																		
Agincourt	43 47	79 16	5.0	15.4	- 0.7	17	38.9	24	-24.0	10	13.6	1.45	-1.78	0.40	13	16		
Aurora	43 57	79 24	886	13.9		4	40.0	19	-25.0	10	17.3	1.37	-0.62	0.75	7	22		
Hamilton	43 16	79 54	303	18.1	- 5.9	37	43.0	19	-14.0	10	12.1	—		—	—	—		
Lorne Park	43 32	79 37	175			4	47.0	20	-18.0	10	16.0	—		—	—	—		
Scarbora Let.	43 43	79 13	545	14.1		3	46.0	17	-26.0	10	18.5	0.90	—	0.43	4	23		
Toronto	43 40	79 24	350	19.0	- 1.1	742	45.6	25	-18.8	10	14.2	1.05	-0.66	0.51	13	16		2
Toronto Is. (Lakeside Home)	43 40	79 8		10.0		7	43.0	25	-19.0	10	13.7	—		—	—	—		
Uxbridge	44 5	79 51	836	13.1		8	39.0	18-19	-26.0	10	14.2	2.17	—	0.50	14	15		
East-Central Counties																		
Bancroft	45 1	77 50		9.8	- 1.7	21	43.0	19	-35.0	10	25.7	—	—	—	—	—		
Haltiburton	45 1	78 28	1050	10.4	- 3.5	24	43.0	18	-40.0	10	24.5	—	—	—	—	—		
Kilmount	44 45	78 38	920									—	—	—	—	—		
Lakeland	44 25	78 15	829	15.6	+ 1.0	25	44.0	25	-28.0	10	16.7	—	—	—	—	—		
Limbury	44 20	78 45	872	13.1	- 3.2	32	39.1	18	-29.4	10	18.3	2.25	-0.67	0.98	13	16		1
Madoc	44 30	77 29	575	11.8		8	37.0	18	-27.0	10	17.7	1.96	—	0.49	10	19		
Peterboro	44 17	78 19	722	13.3	- 3.0	43	33.0	18-24	-30.0	10	18.9	2.67	+0.07	1.10	7	22		
Ursa	44 54	78 18		4.9		6	26.0	13-21	-32.0	9-10	16.8	2.90	—	0.60	11	18		
QUEBEC—																		
Middle St. Lawrence																		
Brome	45 10	72 36	678	11.1	- 2.3	32	42.0	22	-22.0	13	19.1	1.90	-0.03	1.20	4	25		
Cap Rouge	46 46	71 18		9.0		1	35.0	21	-19.3	10-11	16.2	2.15	—	0.60	16	13		
D'Israeli	45 55	71 21	806	9.9		2	36.0	22-23	-25.0	11	17.7	3.10	—	1.20	6	23		
Montreal	45 30	73 35	187	13.5	- 1.1	37	36.0	20	-18.4	10	13.1	3.80	+0.57	1.00	16	13		3
Perkasie Mills	45 38	73 38										—	—	—	—	—		
Quebec	46 48	71 13	296	12.0	+ 0.3	37	35.8	21	-19.4	10	14.4	2.19	-0.87	0.76	11	18	2	
Ste. Anne de Bellevue	45 21	73 49		14.7		6	37.2	19	-19.5	10	14.9	—	—	—	—	—		
Shawinigan Falls	46 31	72 43		6.2		7	38.0	20	-30.0	11	21.2	3.95	—	1.20	10	19		
Sherbrooke	45 32	72 5	620	10.8		9	39.5	22	-17.4	12	21.2	2.14	—	0.93	14	15		
Lower St. Lawrence & Gulf																		
*Anticosti, E. Pt.	49 6	61 42	30	19.3	+ 7.6	27	32.0	5	- 6.0	11	—	1.02	—	0.46	4	25		
*Anticosti, S.W. Pt.												—	—	—	—	—		
*Anticosti, W. Pt.	49 52	64 32	30	19.1	+ 7.8	31	33.0	22	- 7.0	11	—	1.75	—	0.30	11	18		
Bouquet	48 25	68 53		17.2		2	43.0	20	- 5.0	11	—	3.15	—	1.20	9	20		
Cape Chatte	49 6	66 45		17.3	+ 3.0	33	40.0	22	-10.0	10	10	0.80	—	0.30	4	25		2
Cape Magdalen	49 16	65 20	93	17.6	+ 4.7	27	38.0	22	-10.0	10	10	1.63	0.46	1.20	9	23		1
Father Point	48 31	68 19	20	15.9	+ 4.8	34	38.8	23	-13.0	10	15.6	2.68	+0.35	0.62	14	15		
Lake St. John																		
Chicoutimi	48 25	71 5	150	—	+ 0.0	33	44.9	23	-22.0	12	20.1	1.33	-0.27	0.40	8	21		
Chicoutimi (2)	48 25	71 12	1333	4.1		3	37.5	20	-36.0	12	23.1	0.50	—	0.20	4	25		
Lake Edward	47 27	72 48		11.5		1	37.0	21	-28.0	12	23.0	1.35	—	0.89	3	26		
Mistassini			360									—	—	—	—	—		
*Roberval	48 31	72 13	332									—	—	—	—	—		
The Northwestern Districts																		
Abitibi	48 33	79 22		3.3	+ 0.7	16	33.0	19	-33.0	10	20.8	1.15	-0.16	0.30	9	20		
Manitou Crossing												—	—	—	—	—		
Weymouth Landing												—	—	—	—	—		
The North Shore																		
Clarke City	50 10	36 25										—	—	—	—	—		
NEW BRUNSWICK—																		
Clitham	47 3	65 24	21	17.3	+ 3.2	37	46.5	22	-21.5	11	39.6	2.24	-0.05	0.52	13	16		
Dalhousie	48 1	66 22	34	17.1	+ 6.6	45	40.0	22	-15.0	10	17.0	2.50	-0.33	1.80	2	27		
Fredericton	45 57	66 36	161	15.6	+ 0.5	39	43.2	22	-25.0	10	21.1	2.60	-1.35	1.30	10	19		
Grand Manan	44 47	66 46	49	21.1	+ 0.2	37	48.7	22	- 7.0	11	14.6	1.77	-2.26	0.50	9	20		
Munton	46 0	64 45	50	16.0	+ 0.1	15	42.0	22	-18.0	10	20.2	1.25	-1.53	0.55	5	24		2
*Point Lepreau	45 4	66 28	20	22.7	+ 0.2	24	38.0	22	- 7.0	10	—	2.64	-1.10	1.34	7	22		
St. John	45 17	65 4	70	20.1	+ 0.7	39	42.7	22	-12.0	11	14.8	1.97	-1.30	0.52	12	17		
St. Stephen	45 11	67 16	35	13.9		15	48.0	22	-29.5	10	24.0	1.70	-1.21	1.30	4	25		1
Sussex	45 38	65 38	69	16.7	+ 0.6	15	46.0	22	-21.0	11	20.3	3.76	+0.04	1.16	6	23		



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1912

\*Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION				Days with 01 or more No. of fair days *	No. of Auroras	No. of thunderstorms No. of fogs
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily average	Amount	Difference from average	Haviest fall in month			
NOVA SCOTIA—																	
Antigonish.....	45 38	61 59	50	—	—	32	38 0	23	-15 0	11	—	—	—	—	—	—	—
Halifax.....	44 39	63 36	88	22 9	-1 0	37	43 8	22	-11 6	11	11 7	2 84	-1 68	0 58	13	16	—
Kentville.....	45 23	64 19	40	19 0	—	1	46 0	22	-13 0	11	14 7	4 11	—	2 35	9	20	—
Parrsboro.....	45 23	64 19	40	21 1	-0 8	16	43 0	—	—	—	—	—	—	—	—	—	—
Port Hastings.....	45 39	61 22	45	25 7	+6 0	21	51 0	20	-15 0	10	16 3	—	—	—	—	—	—
*Sable Island, E. Pt.....	43 58	59 46	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sydney.....	46 10	60 10	35	19 9	-1 5	38	41 0	22	-12 8	11	15 3	3 03	-1 42	1 10	9	20	—
Truro.....	45 22	63 18	77	18 9	-0 9	38	49 2	22	-27 8	12	30 2	2 79	-1 06	0 45	13	16	—
*Whitehead.....	45 15	61 8	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Windsor.....	44 59	64 6	90	20 5	—	9	48 0	23	-13 0	12	14 1	4 72	—	2 10	10	19	—
Wolfville.....	45 7	64 20	—	20 9	-0 5	11	50 2	22	-9 5	11	15 6	4 89	—	2 15	12	17	—
Yarmouth.....	43 50	66 2	65	24 9	-0 9	31	46 1	22	-1 5	11	11 2	2 96	-1 21	0 82	12	17	—
P. E. ISLAND—																	
Charlottetown.....	46 14	63 10	38	17 7	-0 4	36	40 5	22	-14 0	11	15 5	3 18	-0 63	0 65	12	17	—
Charlottetown (Exp. Farm).....	46 14	63 7	75	17 4	—	2	42 5	22	-16 0	11	15 3	3 58	—	1 30	17	12	—
Hamilton.....	46 25	63 48	—	15 9	-1 2	15	42 0	23	-14 0	10	11 0	2 37	-0 84	0 60	6	23	—
NEWFOUNDLAND—																	
Amour Point.....	51 28	53 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barr.....	47 0	55 10	27	22 2	—	4	36 0	22	-3 0	11	15 9	11 28	—	2 40	21	8	1
Cape Norman.....	51 38	55 52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fogo.....	49 43	54 17	30	21 8	—	3	34 0	23	-4 0	16	10 6	8 50	—	3 90	22	7	2
Point Riche.....	50 42	57 25	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port aux Basques.....	47 35	59 10	27	19 9	—	4	35 0	5 6	-8 5	11	10 6	4 65	—	1 10	19	10	—
St John's.....	47 34	52 42	125	23 7	+0 4	39	38 0	21	-2 0	16-17	10 7	3 90	-1 78	0 40	16	13	2
BERMUDA—																	
Prospect.....	32 17	64 46	151	61 0	-0 7	21	71 8	27	49 2	15	10 4	3 66	1 13	1 22	18	11	—

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING FEBRUARY, 1912.

STATIONS.	RAINFALL.					SNOWFALL.					REMARKS.
	Amount in inches.	No of Days of or over.	No of Fair Days	Heaviest Fall in Month	Date.	Amount in inches.	No of Days	Heaviest Fall in Month.	Date.		
BRITISH COLUMBIA—											
Abath Lake	0.94	8	17	0.23	9-15	1.3	2	0.8	20		
Anna (Came Point)	1.02	7	19	0.23	15	3.5	4	1.5	21		
Armstrong						3.5	3	1.5	21		
Akamia	3.99	15	14	0.80	8	7.3	10	1.3	23		
Beaver Lake	0.24	8	21	1.91	9-10						
Copland	7.58	13	16	1.67	15						
Dean's Island						33.0	9	6.0	14		
Ferguson	7.34	17	12	1.58	9	9.2	11	3.0	18		
Gouldstrom Lake											
Hydraulic	6.31	11	18	1.57	8						
Harby Island	9.63	15	14	0.80	9						
Jordan River	10.64	19	9	1.85	9	4.7	2	4.1	22		
Jordan River (Bear Creek)	4.24	19	9	1.18	22	21.5	5	7.0	22		
Kitada											
Little Quilchua (French Creek, V.I.)	3.53	7	22	0.66	16						
Monte Creek	0.65	3	25	0.02	7-12	1.0	1	1.0	23		
Navy Harbor	5.40	8	21	2.13	22						
Skidgate					9						
Snowdon Lake	5.12	18	11	0.93							
ALBERTA—						0.0	0	0.0	—		
Bardo						0.0	0	0.0	—		
Bismark						2.5	6	0.5	—		
Braderheim						2.0	5	0.8	—		
Bitter Lake						2.0	4	1.0	23		
Brooks						0.5	1	0.5	20		
Campese						1.5	2	1.0	26		
Caldwell						—	1	—	14		
Doreale						1.6	4	0.8	21		
Drapstahl						1.0	1	1.0	27		
Grasse Lake						4.0	2	3.5	27		
Jumping Pond											
Lacombe											
Loch Shy						4.7	2	4.1	27		
Lundon						8.7	1	8.7	28		
Lyncham						5.0	3	2.5	27		
Macdonald						6.0	5	2.1	19		
Maycroft											
Natoley						1.2	1	1.2	27		
Okotoks						7.8	1	3.0	21, 27		
Pekisko						7.5	6	4.0	27		
Ponaka	0.02	1	23	0.02	15	4.6	6	2.0	27		
Seven Persons						1.5	2	1.0	22		
Tilley											
SASKATCHEWAN—						8.0	5	2.8	12		
Gull Lake						0.8	2	0.7	27		
Last Mountain						2.2	6	0.7	21		
Mugh Creek											
Meadow Lake						0.0	0	0.0	—		
Willow Creek											
MANITOBA—						2.8	6	1.0	25		
Cartwright						2.8	3	1.5	27		
Dobson											
Gretton						2.0	4	0.8	28		
Norquay (Swan Lake)						2.1	4	1.1	27		
Rapid City											
Rose Bank											
ONTARIO—						12.5	8	8.2	21		
Deer Park						4.0	2	2.0	11-26		
Dutton						10.3	7	3.5	27		
Embside						13.8	8	5.0	27		
Glenora	0.02	1	24	0.02	19	3.8	3	3.0	22		
Grantham	0.02	1	25	0.02	26						
Gravel Valley						19.0	3	5.0	22		
Madoc	0.15	1	25	0.15	19	20.4	10	21.3	22		
Orangeville						22.0	3	12.0	22		
Stouffville						17.5	8	3.0	—		
Strathroy											
Walford						19.4	5	19.1	22		
Windsor						14.0	3	7.0	27		
Westminster						4.0	3	2.0	28		
Wooler						25.5	8	15.0	22		
Wesley	R	0	28	R	19						
QUEBEC—						23.0	3	9.5	28		
Lincaie						31.0	5	14.0	—		
Parkins Mills						24.5	5	15.0	29		
Quincey Dam						15.8	5	4.5	21		
Timiskaming											
NEW BRUNSWICK—											
Point Escomme	0.04	1	25	0.04	22	17.7	4	11.5	28		
NEW SCOTIA—											
Bgt. Moshumash Lake, Ma lome											
Kentville											
Ketchikan Lake, New Grafton											
Milton	0.46	1	22	1.07	22	28.8	6	16.0	16		
Moshumash River, Malome						28.0	4	15.0	16		
New Germany	0.94	1	5	0.05	23	63.0	10	24.0	17		
South Alton	0.7	1	18	0.17	22						
White Rock	0.4	1	22	0.74	22	10.0	6	24.0	17		

Snow not measured



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE MONTH OF FEBRUARY, 1912.

a Barometer not reduced to sea level.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Moist relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM								VELOCITY OF WIND				
				Mean reduced.	Highest.	Lowest.	Range.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Days and direction from land.
<b>BRITISH COLUMBIA—</b>																							
Aldo .....	51	35 137 38	2280	29 96 30 68	29 98 1 67						1	1	1	5	14	0	0	0	1	58	4 8	28	14 S
Barkerville .....	51	0 123 35	4180	30 03 30 54	30 04 1 04						0	0	0	0	0	0	0	0	0	58	0	—	—
Kamloops .....	51	41 123 29	1235	30 08 30 57	30 55 1 04						1	10	12	1	3	4	10	3	13	58	4 0	18	15 NE
α(Nanaimo) .....	49	10 123 37	125	29 97 30 1	30 41 0 73						1	0	0	15	0	3	2	12	26	58	4 4	35	12 NW
Prince Rupert .....	54	18 149 18	170	24 86 30 4	31 15 1 25						0	0	50	3	1	2	3	1	18	58	4 5	16	21 E
α(Tranquille) .....	50	11 149 29		28 79 23 2	28 29 0 94						2	0	7	6	1	1	8	0	33	58			—
Triangle Island .....	50	32 129 5	(8)																				
Vancouver .....	49	17 123 5	135	30 04 30 5	30 72 0 79						0	0	24	3	0	4	6	1	21	58	2 8	8	—
Victoria .....	48	24 123 19	85	30 08 30 5	31 72 0 80						21	7	0	4	3	7	8	1	1	58	9 0	24	18 SW
<b>YUKON—</b>																							
Dawson .....	64	4 139 20	1200																				
<b>ALBERTA—</b>																							
Banff .....	51	10 115 34	4542	30 11 30 6	29 53 1 11						0	4	1	2	1	22	8	0	20	58			
Calgary .....	51	2 114 2	4380	30 03 30 54	30 38 1 15						0	0	0	0	1	2	11	21	45	58			
Edmonton .....	53	33 113 30	2155	30 05 30 63	30 31 1 31						0	5	0	4	5	15	8	12	4	58			
Medicine Hat .....	50	1 110 37	2161	30 05 30 63	29 47 1 17						2	8	2	11	7	37	7	10	0	87			
<b>SASKATCHEWAN—</b>																							
Battleford .....	52	41 108 20	1620	30 09 30 84	29 41 1 41						0	0	1	20	0	5	8	13	40	57			
Moose Jaw .....	50	21 105 35	1759	30 16 30 76	29 41 1 32						6	3	5	4	0	5	21	22	21	87			
Prince Albert .....	53	30 103 17	2115	30 07 30 79	29 31 1 33						9	3	4	1	2	5	2	30	58				
Q'Appelle .....	50	30 103 17	2115	30 07 30 79	29 31 1 33						0	4	1	7	1	8	13	21	0	58			
Swift Current .....	50	20 197 45	2439	30 13 30 50	29 47 1 33						3	2	1	1	19	17	33	20	0	87			
<b>MANITOBA—</b>																							
αAweme (St. Alban's) .....	49	42 99 33	1180	28 59 29 31	28 29 1 11						5	12	11	5	1	1	29	1	1	58			
Le Pas .....				31 17 30 71	29 41 1 3						2	0	0	8	0	2	1	1	2	58			
Minneapolis .....	50	15 99 30	1290	30 09 30 66	29 37 1 24						2	0	0	1	14	1	5	21	5	58			
Winnipeg .....	49	33 97 7	799	31 15 30 79	30 10 1 29						0	0	2	1	14	1	5	21	5	58			
<b>ONTARIO—</b>																							
Cochran .....	49	2 81 0	946	30 03 31 50	29 41 1 07						8	2	1	0	11	1	13	20	2	58			
Haileybury .....	47	2 79 39	687	24 88 30 55	29 08 1 47						4	4	0	3	1	19	3	6	21	9	58		
Kingston .....	44	14 76 29	285	29 98 30 55	28 81 1 72						3	10	2	3	1	11	21	7	0	58			
London .....	42	59 81 13	808	24 03 30 52	28 1 58						0	30	2	9	0	6	6	33	0	87			
Ottawa .....	45	2 75 42	294	29 92 30 47	29 1 70						7	13	0	30	2	3	11	26	0	58			
Perry Sound .....	45	19 80 0	635	24 96 30 59	29 01 1 56						1	7	6	2	9	2	19	6	6	10	58		
Port Arthur .....	48	27 80 12	644	30 03 30 45	29 44 1 01						6	11	4	4	2	5	1	13	21	8	58		
Port Stanley .....	42	40 81 13	592	30 02 30 64	28 0 1 74						7	13	4	8	8	2	0	7	8	11	58		
Southampton .....	44	30 81 21	656	24 37 30 60	29 10 1 41						5	13	7	5	3	1	24	4	7	1	58		
Stonehill .....	46	9 78 6	557	24 91 30 54	28 80 1 74						0	0	0	0	0	1	13	0	38	58			
Toronto .....	43	40 79 24	330	29 99 30 55	29 0 1 49						7	3	3	7	0	2	3	15	13	2	58		
White River .....	48	35 85 16	1252	29 97 30 42	24 49 0 96						11	2	5	1	3	3	5	4	24	58			
Woodstock .....	43	8 80 47	189	30 01 30 62	28 95 1 67						2	4	4	11	1	12	20	29	4	87			
<b>QUEBEC—</b>																							
α(Levi), S.W. Pt. .....	45	31 08 19	30	29 76 30 28	78 1 51						5	0	7	2	4	9	22	9	0	58			
Father Point .....	45	30 73 35	187	29 91 30 17	28 62 1 85						1	5	2	3	6	13	21	1	0	58			
Montreal .....	46	48 71 13	295	29 83 30 18	28 60 1 89						0	15	0	0	0	31	13	0	1	58			
<b>NEW BRUNSWICK—</b>																							
Chatham .....	47	3 53 23	21	29 75 30 29	28 40 1 49						2	6	6	0	0	5	39	3	3	58			
Fredericton .....	45	37 56 36	164	29 79 30 30	28 81 1 40						6	1	2	2	2	7	37	24	3	81			
Grand Manan .....	44	47 06 43	49	29 78 32 31	28 95 1 34																		
St. John .....	45	17 06 4	70																				
<b>NOVA SCOTIA—</b>																							
Halifax .....	44	39 63 36	88	29 73 33 28	29 11 1 17						7	13	2	3	3	2	7	20	1	58			
Sable Island .....	41	10 09 19	35	29 69 30 29	29 15 1 15						6	9	4	5	2	2	3	11	19	5	58		
α(Wolfville) .....	45	7 04 20	24	29 68 30 22	24 00 1 22						2	6	0	2	1	5	26	14	2	58			
Yarmouth .....	43	50 06 2	65	29 79 30 34	29 05 1 25						22	1	5	1	2	11	3	15	4	58			
<b>P. E. ISLAND</b>																							
Charlotte-town .....	46	14 33 10	38	29 72 30 31	29 05 1 25						5	5	0	4	0	10	5	11	18	58			
<b>NEWFOUNDLAND</b>																							
Burin .....	47	0 55 10	27	29 60 30 33	29 01 1 27						4	6	6	1	2	1	3	29	2	58			
Fogo .....	49	43 54 17	30	29 55 30 15	28 93 1 22						4	11	10	3	1	4	10	9	4	56			
Port aux Basques .....	47	35 59 10	27	29 63 30 25	29 06 1 17						9	8	5	3	2	0	18	12	0	58			
St. John's .....	47	34 52 42	125	29 47 30 18	28 59 1 27						8	11	1	2	2	2	12	14	3	58			
<b>BERMUDA</b>																							
Prospect .....	32	17 04 46	151	30 02 30 46	29 52 0 94						6	4	0	2	3	14	6	22	1	58			



MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
FEBRUARY, 1912.

STATION.	HOURS EXPOSURE.															
	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria			03	26	36	42	46	47	45	37	28	15				
Simon Arm			04	16	27	37	35	28	28	18	14					
Nanaimo			08	15	21	31	35	36	34	39	35	15				
Vancouver			05	21	26	38	34	30	33	26	26		02			
Agassiz			04	11	29	35	38	47	38	50	23	04				
Tranquille	T	08	17	27	36	36	41	47	55	39	17	01				
Summerland			22	37	47	42	50	57	51	29	15	04				
Kamloops			20	35	38	38	41	47	47	41	29	08	T			
Edmonton			12	41	42	51	50	59	59	47	38	12				
Lethbridge			09	19	32	33	51	55	53	55	17	09	06			
Lacombe			14	35	47	46	51	57	54	43	33	25	05			
Medicine Hat	T	07	41	41	51	52	51	57	48	38	26	02				
Fort Dunvegan			08	29	37	50	48	41	51	33	35	09				
Fort Vermilion			02	16	30	42	47	48	41	41	25	07				
Battleford			06	24	37	51	57	54	46	53	42	07				
Indian Head			05	22	28	37	48	51	46	52	42	11				
Moosajaw			09	24	47	48	53	52	57	58	45	13				
Scott		01	06	29	37	39	45	47	45	48	36	15	02			
Rosthern			09	29	38	51	52	52	56	55	45	13	T			
Brandon			01	11	38	29	42	46	41	41	26	05				
Winnipeg			12	25	32	49	50	55	58	60	52	32	02			
Halleybury			01	13	30	41	46	52	49	43	52	23	01			
Woodstock			05	20	32	49	46	49	50	51	45	31	01			
Lindsay			07	26	38	49	50	50	58	41	58	28	02			
Barrie			08	29	35	54	53	53	51	51	27	02				
Toronto			02	20	24	34	36	48	56	49	51	31	02			
Kingston			04	12	26	35	45	55	52	50	44	45	26	01		
Ottawa			03	23	35	48	51	60	54	66	66	55	27			
Montreal		02	15	32	43	49	48	54	61	55	51	20				
Cap Rouge			04	13	21	28	29	29	31	33	21	07				
Quebec		01	15	24	31	32	35	33	32	35	30	11	01			
Sherbrooke			15	25	37	42	43	47	46	51	49	22	T			
Fredericton		02	26	47	55	60	62	62	57	54	56	44	03			
Charlottetown		01	26	31	35	41	49	53	53	60	50	32				

	Victoria	Simon Arm.	Nanaimo	Vancouver	Agassiz	Tranquille	Summerland	Kamloops	Edmonton	Lethbridge	Medicine Hat	Fort Dunvegan	Fort Vermilion	Battleford	Indian Head	Moosajaw	Scott	Rosthern	Winnipeg	Agassiz	Tranquille	Woodstock	Lindsay	Barrie	Toronto	Kingston	Ottawa	Montreal	Cap Rouge	Quebec	Sherbrooke	Fredericton	Charlottetown
Registered duration in hours	96	68	78	81	72	81	81	89	120	140	118	116	108	88	115	102	116	96	116	92	121	108	107	88	61	117	113	111	123	61	107	150	125
Percentage of possible duration %	32	23	27	27	24	26	27	31	42	48	41	38	37	33	40	35	39	34	40	31	42	36	35	28	20	31	37	47	47	37	51	42	
Difference from average %	-4				+2									-9	0				-10					-7	-6	-2	+3	+3	+1		+7	+8	
Maximum percentage in one day %	91	84	87	89	75	84	81	86	111	94	75	78	86	81	84	81	88	71	89	87	91	101	102	82	81	91	95	100	79	92	89	95	
Date of maximum	29	28	29	29	21	25	24	27	28	2	28	28	28	28	28	20	29	28	28	2	2	12	11	10	12	29	23	23	25	10	15	11	
Number of days completely clouded	5	11	11	12	14	7	12	5	1	4	4	5	12	3	5	4	5	6	6	5	5	7	10	11	8	7	4	6	10	8	4	8	

*Auroras recorded:—*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
7. Glen Bryan II, Prince IV, Waseca, Aweme IV, Kakabeka Falls IV, Sion IV, Waitefield IV.
8. Sion IV.
9. Fort Qu'Appelle IV, Glen Bryan II, Muenster IV, Prince IV, Waseca, Aweme III, Quebec IV,  
Lake Talon, Schreiber IV, Oliver.
10. Halkirk, Oliver, Waitefield IV.
11. Carcross, Oliver.
12. Hillsdown IV, Peace River Crossing, Port Arthur III, Oliver, Waitefield III.
13. Lucknow IV.
14. Prince IV, Waseca, Mistassini IV.
15. Hillsdown III, Fort Qu'Appelle IV, Oliver.
16. Halkirk, Crescent Lake IV, Fort Qu'Appelle IV, Muenster III, Aweme III, Campsie IV,  
Sion IV, Waitefield IV.
17. Halkirk, Fort Qu'Appelle IV, Glen Bryan I, Sion IV.
18. Fort Qu'Appelle IV, Waitefield IV.
- 19.
- 20.
- 21.
- 22.
23. Mistassini IV.
24. Halkirk.
25. Carcross, Quebec IV.
26. Kenora III.
- 27.
- 28.
29. Mistassini IV.

## FORECASTS FOR FEBRUARY 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1111. These were divided as follows:—

DISTRICT.	No. Issued	VERIFIED.			
		No. Fully.	No. Partly.	No. Not	Per- centage.
Alberta.....	75	70	1	1	96.0
Saskatchewan.....	75	66	9	0	94.0
Manitoba.....	75	69	4	2	94.7
Lake Superior.....	81	74	9	1	93.4
Lower Lake Region.....	29	25	12	2	91.9
Georgian Bay.....	97	67	25	5	81.9
Ottawa Valley.....	92	78	10	4	90.2
Upper St. Lawrence.....	92	78	11	3	90.8
Lower St. Lawrence.....	93	81	12	3	90.6
Gulf.....	101	75	19	7	85.7
Maritime Provinces West.....	112	85	23	4	86.2
Maritime Provinces East.....	113	74	33	6	80.1
Total.....	1111	802	171	38	88.9

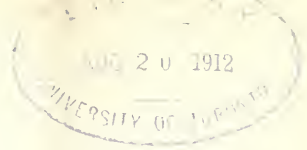
In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
March 26, 1912.





DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

MARCH, 1912

No. 3

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

In the Queen Charlotte Islands, the northernmost districts of Vancouver Island and on the neighboring coast, the mean temperature of March was a little higher than the normal. In the remainder of the Province, however, there was a negative difference from normal, varying from  $1^{\circ}$  to  $2^{\circ}$  along the Lower Fraser and the southern districts of Vancouver Island, and from  $2^{\circ}$  to  $6^{\circ}$  in the southeastern districts. About the 8th, minima of zero or  $1^{\circ}$  below were recorded in the East Kootenay, while in the northern districts temperatures of  $5^{\circ}$  to  $10^{\circ}$  below zero were of frequent occurrence till the 21st. At the close of the month maxima exceeding  $70^{\circ}$  were registered at some points in southern Vancouver Island and on the Lower Fraser.

### THE WESTERN PROVINCES.

The greatest differences from normal temperature in the Western Provinces occurred in southern Saskatchewan and amounted to from  $5^{\circ}$  to  $9^{\circ}$ . Although mean temperatures were less than normal throughout the West, yet in Alberta along the Red Deer and Bow Rivers the difference was only about  $1^{\circ}$ , and in eastern Manitoba was less than  $1^{\circ}$ . During the first three weeks temperatures well below zero were of daily occurrence, but during the last week the weather was much milder in all districts.

### ONTARIO.

$10^{\circ}$  to  $30^{\circ}$  below zero were registered from the 3rd to the 8th in the Georgian Bay counties, and again from the 16th to the 18th. The lowest temperatures recorded in the Lake Erie counties and the Niagara Peninsula were not, in general, below zero. In the Lake Superior districts the first 16 days were very cold, with night temperatures from  $5^{\circ}$  to  $30^{\circ}$  below zero, and day temperatures seldom exceeding the freezing point. Minima were below zero for the first ten days in Eastern Ontario, also.

The mean daily temperature was about  $5^{\circ}$  lower than the normal over the greater portion of the Province, while local departures from the normal mean were in many cases considerably greater than  $5^{\circ}$ .



## QUEBEC.

Stations in Northwestern Quebec reported an average of but 8 days during which temperatures did not fall below zero. The lowest temperatures of the month were recorded during the first 6 days and ranged in these districts from  $30^{\circ}$  to  $45^{\circ}$  below zero. In the Lake St. John districts and along the Saguenay River the cold wave was not of such severity, although on the 5th the temperature decreased to about  $30^{\circ}$  below zero. Along the Middle St. Lawrence temperatures below zero occurred but seldom after the first week. Mean temperatures on the Island of Anticosti showed a small excess over normal, but over the remaining portion of the Province, temperatures were below normal, the difference ranging from  $1^{\circ}$  in the Gaspé Peninsula to  $6^{\circ}$  in northwestern districts.

## THE MARITIME PROVINCES.

That portion of New Brunswick lying near Chaleur Bay experienced the lowest temperatures reported in the Provinces, minima on the 6th, 7th and 8th ranging from  $10^{\circ}$  to  $20^{\circ}$  below zero. In Nova Scotia and in Prince Edward Island, in most instances, temperatures below zero occurred on two days only.

The mean daily temperature of the month was about  $1^{\circ}$  below normal except in portions of New Brunswick, where the difference was approximately  $2^{\circ}$ .

## PRECIPITATION.

### BRITISH COLUMBIA.

The precipitation was everywhere in British Columbia much less than the normal amount. The deficiency on Vancouver Island and on the Lower Fraser River ranged as high as 80% at many stations. In the interior of the Province precipitation occurred on an average of only 3 days, while at some points there was none.

## THE WESTERN PROVINCES.

In almost every instance the total precipitation was less than a half of an inch, and in some cases was nil. The largest amounts were recorded near the confluence of the two branches of the Saskatchewan River, where the average of five stations was in excess of three-quarters of an inch, which closely approaches the normal for that district.

## ONTARIO.

In the Lake Superior Districts, the Georgian Bay and Lake Erie counties, the Niagara Peninsula and the Ottawa Valley, the deficiency was very large, but in the East Central counties excess over normal was reported locally.

## QUEBEC.

On the Island of Anticosti, and the lower shore of the Lower St. Lawrence, the precipitation was in excess of average by about one inch, but elsewhere in the Province the deficiency was as pronounced as in Ontario.

## THE MARITIME PROVINCES.

Throughout the Maritime Provinces there was an excess amounting to about 20% of the normal except on the Bay of Fundy where there was a negligible deficiency.

## ATMOSPHERIC PRESSURE.

The value of the mean atmospheric pressure for March was in excess of the average throughout the Dominion, the departures from average being generally about one-tenth of an inch, but in a few isolated localities they were about half that amount.

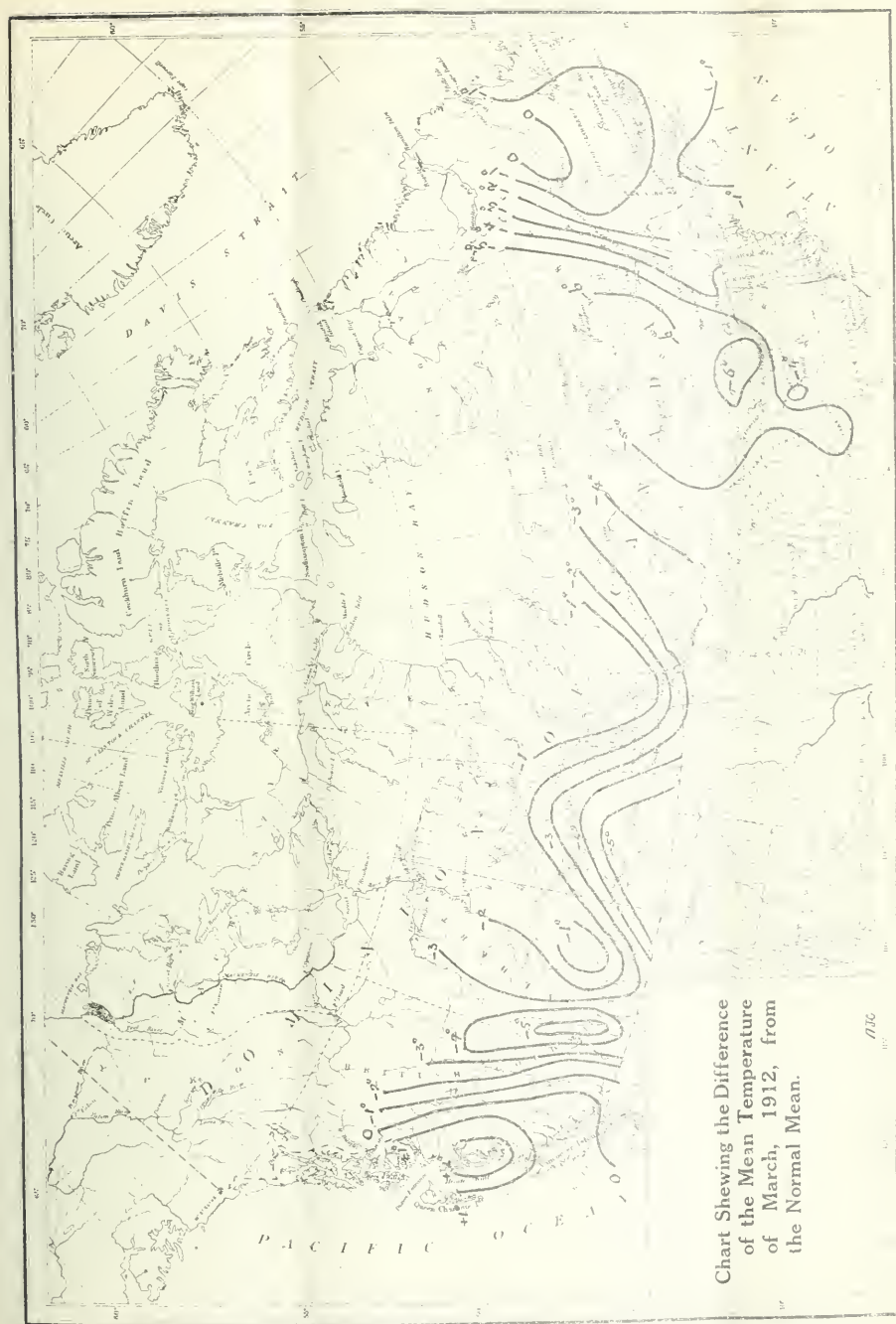


Chart Shewing the Difference  
of the Mean Temperature  
of March, 1912, from  
the Normal Mean.

H. W. & C. O. S. P. Co.

## HIGH AREAS.

Ten areas of high pressure were charted. Five first appeared in the environs of the Yukon Territory; three in northern British Columbia and two to the northward of the Western Provinces. Five of the areas passed over, and five to the southward of the Great Lakes, seven eventually moving off the United States Atlantic coast, the remaining three breaking up before reaching the Eastern seaboard. Some of the areas were of much importance; others again were not very pronounced, but energetic, and they were in nearly all instances attended by much cold weather, the result being a mean temperature for the month well below the average generally.

## LOW AREAS.

Fifteen areas of low pressure were charted. Four first appeared on the coast line of British Columbia, one in Alberta, one to the northward of Saskatchewan, four on the Californian coast, two in the Middle Pacific States, two in the Gulf of Mexico and one off the Florida coast. Six of the areas moved either over or to the northward and eight to the southward of the Great Lakes, while the remaining area broke up before it reached the Rocky Mountain Range. With few exceptions the areas ultimately passed over the Maritime Provinces and Newfoundland, where several became much more pronounced than they had been previously, their attendant strong winds at the same time increasing considerably in force.

## DEPTH OF SNOW UPON THE GROUND.

Reports from British Columbia showed that at the close of the month there was very little depth of snow in that province except in sheltered places. In the Western Provinces, where there was no precipitation at some points during the month, the ground was practically bare in all districts.

In the Lake Superior districts, the depth varied from 1 inch in Thunder Bay to 14 inches in parts of Eastern Algoma. From the Montreal River 14 inches was reported, Muskoka and Parry Sound Districts, 8 to 16; Haliburton, 18; Peterboro, 25; and Madoc, 12 inches. In Southern Ontario only patches of snow were to be seen, except in the woods.

At Mistassini, on Lake St. John, there was a depth of 18 inches; at Chicoutimi on the Saguenay River, 34 inches, and at White Shore Lake on the line of the National Transcontinental Railway, 32 inches. Along the Middle St. Lawrence there was little or no snow.

## THICKNESS OF ICE.

Thickness of ice was reported as follows:

WESTERN PROVINCES.—Battleford, 19.5 inches; Swift Current, 30; Moose Jaw, 37; Minnedosa, 24.

ONTARIO.—Port Arthur, 34 inches; Cochrane, 30; Port Stanley, 24; Kingston, 14; Ottawa, 26; Montreal, 22.

QUEBEC.—Harrington, 30 inches.

MARITIME PROVINCES.—Chatham, 18 inches; Sydney, 12; Charlottetown, 16.

## BRIGHT SUNSHINE.

The month of March, 1912, was characterized by a great number of bright days, the aggregate of the hours of bright sunshine exceeding the average throughout the Dominion, and to a remarkable extent in British Columbia.

## WINDS, MARCH, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
<b>BRITISH COLUMBIA.</b>							
Triangle Island.....	4930	405	72	11			
Victoria.....	5788	541	30	2	4	10	N.
Point Garry.....	4023	515	35	1	3	8	N.
<b>ALBERTA.</b>							
Edmonton.....	4016	262	20		1	8	NW.
Calgary.....	4459	388	25		5	2	NE. NW.
<b>SASKATCHEWAN.</b>							
Battleford.....	4680	525	39	1	2	6	SW. NW.
Qu'Appelle.....	6779	391	22		5	12	SW. NW.
<b>MANITOBA.</b>							
Winnipeg.....	7842	417	30	1	12	8	NW.
<b>ONTARIO.</b>							
Port Arthur.....	6427	396	32	1	6	11	NW.
Parry Sound.....	5166	335	31	1	1	12	SW.
Southampton.....	7385	439	28		11	8	S.
Woodstock.....	6094	371	27		3	12	NE. NW.
Toronto.....	8914	595	48	2	12	10	E.N.
<b>QUEBEC.</b>							
Quebec.....	9175	613	49	7	11	4	SW.
Fother Point.....	11219	768	51	6	12	9	SW.
<b>MARITIME PROVINCES.</b>							
Fredericton.....	7857	515	31	4	10	10	NW.
St. John.....	10660	597	44	8	14	6	NW.
Halifax.....	10446	625	56	7	12	12	NW.
Point Lepreaux.....	12971	655	55	12	14	2	NW.
Flat Point.....	12364	811	55	13	11	5	NW.
Charlottetown.....	6064	494	31	1	8	8	NW.

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1912.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet	TEMPERATURE.							PRECIPITATION.							
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
BRITISH COLUMBIA.—																		
S. Vancouver Island																		
Alberni (Beaver Creek)	49 15	124 40	300	23.2	—	17	73.0	30	19.0	8 9	32.2	1.02	-4.54	0.49	6	25	...	3
Clayoquot	49 11	125 47	40	43.2	+ 1.2	12	59.0	6-30	28.0	2	17.0	1.75	-9.01	1.00	5	26	...	1
Cowichan (Tzodahlem)	48 25	123 42	170	41.2	—	12	69.0	31	20.8	10	26.1	0.83	—	0.39	2	29	...	...
Ladner	49 05	124 1	...	41.2	- 0.1	12	69.0	31	24.0	2	26.4	0.30	-2.73	0.20	4	27	...	...
Nanaimo	49 10	123 37	125	40.5	+ 1.3	12	61.0	26	21.0	2	20.3	0.53	-5.77	0.36	4	29	...	...
Salt Spring Island	48 50	123 20	225	41.1	—	3	55.0	31	22.0	2	17.6	0.83	—	0.45	8	28	...	...
Sooke	48 41	123 44	...	41.3	—	2	61.0	31	23.0	...	20.8	1.21	—	0.56	...	...	...	...
Victoria	48 24	123 19	85	42.5	- 1.7	19	60.0	31	27.2	9	16.3	1.43	-1.28	0.37	9	22	...	1
N. Vancouver Island																		
Holberg	50 39	128 18	.....	41.1	—	3	58.3	26	26.3	2	17.2	2.87	—	0.75	7	24	...	...
Swanson Bay	50 37	126 53	.....	39.7	—	4	59.0	25	24.0	4	19.2	4.58	—	2.05	5	26	...	...
Winter Harbour (Quintana)	50 52	129 5	680	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	50 52	127 40	.....	40.2	+ 0.8	17	58.0	25	23.0	3	19.1	1.71	—	0.94	5	26	...	...
Lower Fraser River																		
Agassiz	49 14	121 31	32	42.5	+ 0.6	20	65.0	30	26.0	8	22.6	2.03	-2.95	0.68	7	24	...	...
Chilliwack	49 10	121 57	21	41.3	—	12	75.0	26	22.0	3-6	21.0	1.13	-3.56	0.19	7	24	...	1
Hope	49 23	121 25	...	42.2	—	3	75.0	25	21.0	23	27.2	1.14	—	0.79	2	29	...	...
New Westminster	49 13	122 54	330	42.2	- 0.3	24	62.6	31	23.2	2	19.6	0.65	-5.46	0.23	5	26	...	2
North Nicomen	49 12	122 2	59	41.8	- 0.7	20	65.0	31	23.0	3-9	21.0	1.10	-5.92	0.36	5	26	...	...
Pemberton Hatchery	50 20	122 33	...	39.0	—	4	65.0	31	17.0	8	24.9	0.20	—	0.20	1	30	...	...
Ruskin (Steve Falk)	49 16	122 23	125	40.1	—	3	61.0	25	21.0	4	21.7	1.72	—	0.50	7	24	...	...
Stevenson (Gary Point)	49 21	123 17	...	38.5	- 1.6	17	54.0	31	23.0	10	17.8	0.41	-2.12	0.19	4	27	...	1
Vancouver	49 17	123 5	136	41.2	- 1.5	11	56.3	31	25.9	2	16.8	0.89	-3.26	0.36	5	25	...	...
Upper Fraser River																		
Babine Lake	55 38	126 26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barkerville	53 02	121 35	4180	25.2	- 0.4	22	50.0	26-31	- 9.0	2	25.1	1.10	-0.97	0.50	4	27	...	...
Chiloutin (Big Creek)	51 40	123 0	3180	26.2	—	9	57.0	26	-10.0	1	29.8	0.10	—	0.10	1	30	1	...
Fort St. James (Stuarts Lake)	54 28	124 12	2280	15.5	- 5.0	19	48.0	31	-20.0	19	27.9	0.14	-0.69	0.12	2	29	...	...
Quesnelle	52 50	122 30	1700	23.7	- 3.8	15	50.0	27	-13.0	4	33.9	0.10	-0.34	0.10	1	30	...	...
Okanagan Valley																		
Fairview	49 11	119 36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hedley	49 35	120 10	.....	36.0	—	8	66.0	26-31	10.0	2	24.3	0.09	—	0.03	4	27	...	...
Hedley (Nickel Plate)	49 35	120 10	.....	36.0	—	8	66.0	26-31	10.0	2	24.3	0.09	—	0.03	4	27	...	...
Okanagan Mission (Kelowna)	49 52	119 29	1200	31.6	- 5.1	13	62.0	31	6.0	20	17.9	0.50	-0.73	0.00	0	31	...	...
Pentagon	49 29	119 35	333	33.3	—	6	56.5	27	12.5	9	22.0	0.05	—	0.03	3	28	...	...
Princeton	49 29	120 29	1650	28.9	- 0.0	17	64.0	30	-5.0	2-3	32.7	0.26	-0.35	0.11	3	28	...	...
Summerland	49 57	119 0	1100	34.4	—	5	65.0	27-31	11.0	4	20.7	0.08	—	0.08	1	30	...	...
Vernon (Coldstream Ranch)	50 14	119 15	1246	30.2	- 5.2	17	56.0	31	6.0	2	21.3	—	—	—	—	—	...	...
West Kootenay																		
Crawford Bay	49 45	116 45	2000	32.8	—	1	57.0	26	12.0	4-7	22.1	0.86	—	0.35	4	27	...	...
Frutvale	49 9	117 31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Forks	49 2	118 27	.....	32.0	—	2	64.0	27	6.0	4-5	23.2	0.15	—	0.09	2	29	...	...
Greenwood	49 5	118 49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kaslo	49 52	117 0	1752	31.0	—	3	52.0	25	11.0	4-5	17.4	0.50	—	0.20	5	26	...	...
Nakusp	50 20	117 50	1390	29.4	—	1	54.0	25-26	5.0	5	22.6	0.36	—	0.23	4	27	...	1
Needles	49 40	118 9	.....	31.3	—	3	56.0	27	7.0	4-9	22.2	0.29	—	0.20	1	30	...	...
Nelson	49 29	117 21	1760	35.2	—	9	59.0	31	12.0	3-9	22.4	0.58	—	0.70	4	27	...	...
Rossland	49 5	117 48	3400	—	—	0	56.0	27	—	—	—	0.85	—	0.40	5	26	...	...
East Kootenay																		
Bowell	49 19	116 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cranbrook	49 30	115 50	.....	27.1	—	3	59.0	31	-2.0	7	28.3	0.03	—	0.02	2	29	...	...
Tobacco Plains (Elko)	49 1	115 5	2684	30.1	- 3.6	17	62.1	28	0.0	8	23.6	0.09	-0.12	0.40	4	27	...	...
Wilmot	50 34	116 14	.....	25.5	—	3	55.5	28	-1.0	2-9	27.3	0.00	—	0.00	0	31	...	...
Thompson River																		
Enderby	50 32	119 7	1180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kamloops	50 41	120 29	1245	33.7	- 3.1	18	66.0	25	7.9	4	25.6	0.60	-0.42	0.00	0	31	...	...
Nicola Lake	50 9	120 39	2120	30.1	- 1.7	17	64.0	31	6.0	4-5	23.1	0.08	-0.57	0.03	3	28	...	...
Salmon Arm	50 42	119 35	1152	31.0	- 2.5	10	57.0	25-31	3.0	4	26.3	0.03	—	0.03	1	30	...	1
Tranquille	50 41	120 29	.....	34.0	—	4	68.0	26	10.0	5	25.6	R	—	R	0	31	...	...
North Columbia River																		
Golden	51 16	116 55	2550	25.3	—	9	57.0	27	-10.0	2	31.3	0.15	—	0.15	1	30	...	...
Gleichen	51 14	117 29	4072	22.6	—	14	46.0	28	-1.0	1	16.2	1.20	-5.20	0.40	3	28	...	...
Revelstoke	51 0	118 6	1476	31.2	—	12	60.0	27	6.0	4-9	25.9	0.79	-2.09	0.40	4	27	...	...

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1912

\* Stations not furnished with Registering Thermometers

[illegible]



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1912.

\* Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.											
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.			
<b>SASKATCHEWAN—</b>																						
<i>Qu'Appelle River</i>																						
Broadview	50 23	102 33	1960																			
Brownhill (Grenfell)	50 23	102 53	1957	7.0	-9.2	10	38.0	27	-28.0	19	28.0	0.70	—	0.30	4	27	1					
Brownlee	50 45	106 0																				
Crescent Lake	50 59	102 25	1658	5.5	—	7	40.4	27	-30.8	2	27.8	0.59	-0.40	0.25	6	25	3					
Estevan	49 12	103 4	1858	9.8	—	9	46.0	23	-22.0	1	20.4	0.40	—	0.40	1	30						
Fort Qu'Appelle				9.7	—	1	45.5	26	-29.6		32.4	0.32	—	0.10	7	24	4					
Hubbard (Dramaue)				6.7	—	6	40.0	28	-35.0		26.3	0.60	—	0.40	3	28						
Humboldt	51 5	103 24																				
Imperial	51 22	105 23		2.5	—	1	44.0	28	-38.0	3-4	22.2	0.00	—	0.00	0	31						
Indian Head	50 28	103 40	1924	7.0	-6.7	20	42.0	27	-28.0	1	20.4	0.40	0.25	0.12	4	27						
Manor	49 43	102 2	2064																			
Moose Jaw	50 21	105 33	1759	12.8	-1.3	17	51.0	31	-25.0	1	25.6	0.14	—	0.05	4	27			1			
Mooseman	50 0	101 37	1884	8.0	-6.7	10	38.0	27	-27.0	2	25.8	0.00	—	0.00	0	31						
Muenster (St. Peter's)	52 0	105 0	1870	3.5	—	6	40.0	31	-31.0	1	25.7	0.40	—	0.30	2	29						
Pilger	52 25	105 28		11.7	—	1	43.0	31	-33.0	1	29.0	0.50	—	0.50	4	27						
Ponse (Gatesgarth)	50 30	105 0	1879	9.6	-2.1	14	45.0	27	-30.0	1	28.6	0.24	—	0.15	4	27						
Qu'Appelle	50 30	103 47	2115	9.5	-5.1	28	42.0	27	-28.0	2	23.7	0.38	-0.70	0.16	4	27	1					
Quill Lake	52 4	104 14	1600	1.7	—	1	36.0	24-31	-32.0	1	25.8	0.11	—	0.06	2	29			1			
Regina	50 27	104 57	1885	5.9	-5.2	26	44.0	31	-29.0	1-2	25.8	0.08	-0.39	0.03	3	28						
Yarbo (Fairfield)	50 39	102 4																				
Yellow Grass	49 49	104 9																				
Yorkton	51 11	102 29		8.2	—	1	44.0	27	-25.0	1	26.4	0.20	—	0.20	1	30						
<i>S. Saskatchewan River</i>																						
Chaplin	50 26	106 39	2202	6.9	-9.4	26	50.0	27	-27.0	18	27.9	0.04	—	0.01	4	27						
East End	49 31	108 49		12.9	—	3	46.0	26	-16.0	1-2	15.8	0.15	—	0.10	2	29			3			
Kelvinhurst	49 21	109 29																				
Larchmont (Glenbryan)	49 54	107 27		7.9	—	2	46.0	29	-28.0	1	21.7	0.10	—	0.05	2	29						
Magle Creek (Divide)	49 45	109 28	3500	11.7	—	3	43.0	27	-24.0	1	20.3	0.25	—	0.15	2	29	7		7			
Oliver	51 46	108 10		4.8	—	3	43.0	27	-35.0	2	21.1	0.10	—	0.10	1	30						
Rathmullen	51 20	108 57		1.8	—	2	38.0	28	-32.0	1	22.9	0.10	—	0.10	1	30						
Swift Current	50 20	107 45	2439	12.0	-8.0	25	50.0	31	-22.0	1	20.7	0.10	-0.76	0.02	5	26						
<i>N. Saskatchewan River</i>																						
Battleford	52 41	108 20	1620	11.1	-2.0	21	53.0	31	-27.0	2	24.2	0.20	-0.46	0.10	2	29						
Joyminster	53 18	110 0		7.8	—	2	48.0	27	-30.0	1	24.1	—	—	—	—	—						
Lansdale	52 5	109 34		7.0	—	2	43.0	31	-35.0	1-2	21.3	0.05	—	0.05	1	30			1			
Onion Lake	53 52	109 59		5.5	—	4	44.0	26	-39.0	3	29.7	0.00	—	0.00	0	25						
Prince (Monta)	51 0	108 20	1700	6.0	—	6	50.0	27	-37.0	1	32.8	0.15	—	0.15	1	30	1		3			
Scott (Ex Farm)	51 59	109 30		6.0	—	3	46.0	27	-31.8	1	25.4	0.23	—	0.23	1	30						
Waseca	53 6	109 29		8.7	—	4	30.0	27	-28.0	19	23.5	0.40	—	0.40	1	30	4					
<i>The Saskatchewan Forks</i>																						
Chazness	52 32	104 13		8.4	—	1	47.0	31	-36.0	1	28.3	0.80	—	0.40	5	26	4					
Duck Lake	52 54	106 20																				
Mellor	52 47	104 30		6.9	—	3	44.0	31	-25.0	1	26.2	0.95	—	0.40	3	28	2					
Prince Albert	53 10	106 0	1432	8.7	-3.6	26	53.0	31	-27.5	20	27.9	1.03	0.00	0.80	6	25						
Rosthern	52 40	106 29	1657	3.9	—	2	40.4	28	-30.0	2	24.7	0.60	—	0.60	1	30						
Saskatoon	52 15	106 30	1571	6.7	-7.0	14	48.5	28	-32.0	1	24.5	0.60	—	0.20	4	27						
<i>Lower Saskatchewan River</i>																						
Cumbarland House	53 56	102 16		4.3	—		39.0	28	-25.0	1	19	25.8	—	—	—	—						
Lost River																						
<b>MANITOBA—</b>																						
<i>Qu'Appelle and Assiniboine Rivers</i>																						
Aweme (St. Albans)	49 42	99 35	1180	11.8	-1.5	25	45.0	27	-24.0	2	27.8	0.43	-0.44	0.11	11	20	4					
Birtle	50 25	101 1	1703																			
Brandon	49 51	99 57	1176	10.2	-5.0	25	41.9	27	-27.2	2	26.9	0.27	-0.59	0.10	3	28						
Carberry	49 52	99 20	1258	—	—	—	—	—	—	—	—	0.05	—	0.05	1	30						
Carman	49 31	98 0	872																			
Cypress River	49 32	99 3	1232																			
Hillview	49 55	100 33	1400	8.8	-4.4	26	39.0	27	-25.0	2	24.3											
Minnedosa	50 15	99 50	1699	9.8	-5.1	29	38.0	24-26	-25.0	20	24.1	0.69	+0.12	0.23	8	23	1					
Nietette	49 24	99 38	1363	13.1	—	1	41.0	28	-17.0	2	16.5	0.13	—	0.05	3	28						
Ninga	49 14	99 51	1640	—	—	2	36.0	25	-11.7	1	—	0.86	—	0.46	3	28						
Persan	49 11	101 5	1531																			
Pipestone	49 34	100 58	1400																			
Portage la Prairie	49 57	98 17		14.4	-0.5	25	43.0	23	-16.5	1	21.1	0.10	-0.60	0.10	1	30						
Portage la Prairie (2)	49 50	98 17																				
Treherne	49 36	98 40	1212	13.3	-0.1	17	41.0	27	-18.0	1	22.6	0.20	—	0.05	10	21	4					
Virden	49 51	100 55	1444																			
<i>The Red River</i>																						
Almasippi	49 14	99 20		15.6	-3.2	10	42.0	24-29	-20.0	2	25.8	0.05	—	0.05	1	30						
Arden	49 11	98 6	978	14.4	—	10	46.0	25	-15.0	1	23.0	0.05	—	0.05	1	30						
Oak Bank	49 57	96 42	800	11.8	-3.8	17	36.5	24	-24.7	2	23.7	0.80	+0.17	0.30	5	26	1					
Stony Mountain	50 40	97 14	803	11.3	-2.4	30	39.0	26	-21.0	1	28.0	0.08	-0.43	0.05	2	29						
Winnipeg	49 53	97 7	700	15.3	-0.6	38	41.5	24	-17.6	1	24.9	0.30	-0.95	0.11	7	24	1					

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1912.

\* Stations not furnished with Registering Thermometers

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.						
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of auroras.
MANITOBA—Continued																	
Dauphin Lake and River																	
Berens River .....	52 18	97 23	716	-0.1	—	4	26.0	27	-32.5	14 27.1	1.60	—	1.20	3 28			
Dauphin .....	51 8	160 2	957	10.4	—	1	35.0	27-28	-17.5	1 21.4	0.20	—	0.20	1 30			
Moose Horn Bay (Aikensville) .....	51 15	99 33	.....	6.1	.....	2	37.5	28	-27.0	2 25.8	1.19	—	0.38	14 17	5		
Lake Winnipegosis																	
Le Pas .....	53 49	101 15	860	2.9	—	2	35.0	27	-32.0	1 26.8	0.40	—	0.09	8 23			
Swan River .....	52 6	101 15	1112	7.7	.....	4	40.0	31	-30.0	18 27.4	—	—	—	8 23			
ONTARIO—																	
The Lake Superior Districts																	
Rainy River																	
Kenora .....	49 48	94 32	1102	10.3	-9.9	13	34.0	29	-24.0	2 20.2	0.50	-0.12	0.30	4 27	1		
Thunder Bay																	
Kakabeka Falls .....	48 29	89 26	912	11.4	—	4	50.0	28	-31.0	2 36.4	0.70	—	0.20	6 25	1		
Port Arthur .....	48 27	89 12	644	15.2	-3.9	32	45.0	27-28	-14.0	2 25.4	0.36	-0.59	0.18	6 25	1		
Schreiber .....	48 50	87 15	933	10.6	-4.0	12	51.9	28	-29.8	2-3 29.6	2.55	—	0.80	8 23	3		
Algoma																	
Bruce Mines .....	46 18	83 55	595	17.5	-9.0	14	44.0	18	-21.0	3 28.8	0.20	-3.18	0.10	2 29	..		
Copper Cliff .....	46 30	80 39	.....	16.9	—	7	43.0	19-28	-26.0	5 23.7	0.10	—	0.10	1 30	..		
Porcupine .....	48 29	81 18	.....	17.7	—	1	43.0	19	-16.0	5 23.2	0.00	—	0.00	0 31	..		
Providence Bay .....	45 40	82.4	.....	7.5	-5.4	22	36.0	18	-39.0	3 35.8	1.20	-0.50	0.30	7 24	..		
White River .....	48 35	85 16	1252	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Nipissing																	
Cochrane .....	49 2	81 0	946	10.9	.....	2	38.0	17-18	-25.0	3 28.0	1.44	—	0.80	4 27	..		
Haileybury .....	47 29	79 39	687	16.2	.....	19	43.7	19	-23.9	4 25.5	0.59	-1.66	0.18	9 22	3		
Montreal River .....	47 8	79 29	.....	13.2	.....	2	45.0	19	-31.0	3 30.1	0.20	—	0.20	1 30	..		
Upper Ottawa River																	
Lake Taion (Rutherforden) .....	46 15	74 48	.....	17.6	.....	17	48.0	28	-24.5	3 23.7	1.16	-1.51	0.50	5 26	1		
Stopecliff (Rockcliffe) .....	46 9	78 6	557	16.3	-3.7	35	43.0	19-28	-30.0	6 29.7	0.58	1.37	0.40	6 25	..		
Upper St. Lawrence and Lower Ottawa Rivers																	
Kingston .....	44 13	76 29	285	22.3	-5.4	38	44.6	29	-7.5	6 18.0	1.63	-0.67	0.68	12 19	..		
Montague .....	44 56	75 57	.....	17.5	—	2	45.0	28	-27.5	6 24.1	1.20	0.65	0.60	3 28	..		
North Gower .....	45 8	75 43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Ottawa .....	45 26	75 12	294	19.0	-0.7	29	44.0	29	-17.0	6 20.5	1.50	-1.03	0.85	9 22	..		
Renfrew .....	45 26	76 39	416	18.1	-1.9	23	45.0	28	-27.0	6 27.5	1.63	-0.39	0.75	8 23	5		
Georgian Bay Counties																	
Barrie .....	44 23	79 41	839	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Beatrice .....	45 8	79 20	809	17.6	-4.7	37	44.0	19	-18.0	6 23.4	1.75	-1.30	1.00	6 25	..		
Coldwater .....	44 38	79 40	600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Collingwood .....	44 31	80 2	.....	18.4	-3.1	17	51.0	20	-20.0	3 24.1	0.93	-1.03	0.73	4 27	..		
Gravenhurst .....	44 54	79 20	.....	16.2	-7.5	41	48.0	28	-24.0	3 28.2	1.76	-0.75	0.80	6 25	..		
Huntsville .....	45 19	79 8	.....	16.7	—	5	46.0	19	-27.0	6 23.2	—	—	—	—	..		
Midland .....	44 44	79 53	750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Orillia .....	44 37	79 24	775	19.4	-3.7	20	45.0	29	-13.0	6 21.6	1.90	—	1.20	3 28	..		
Owen Sound .....	44 24	80 55	397	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Perry Sound .....	45 19	80 0	635	18.7	-4.7	35	48.0	19	-18.0	6 23.4	1.70	-1.31	0.70	8 23	..		
Ronville .....	45 15	78 57	1038	16.4	—	5	51.0	28	-29.0	2 32.4	—	—	—	—	..		
Shelburne .....	44 5	80 47	.....	16.6	—	3	40.5	20	-15.5	3 19.8	1.90	—	0.90	4 27	1		
Ti Islands .....	45 48	79 25	.....	15.6	-6.8	25	46.0	28	-27.0	3 31.0	1.80	+0.52	0.55	9 22	..		
Lake Huron Counties																	
Biram .....	43 2	81 55	600	22.0	-4.8	27	45.2	17	-7.0	23 14.3	2.23	0.41	1.10	8 23	1		
Clinton .....	43 32	81 37	.....	16.3	—	9	42.0	20	-12.0	16 20.6	1.75	—	0.80	9 22	1		
Godfrich .....	43 45	81 41	.....	19.2	-7.8	22	43.0	20	-5.0	3 15.6	1.33	—	0.50	6 25	..		
*Port Bruce .....	44 23	81 25	.....	20.3	-7.2	24	42.0	17-28	-17.9	3	0.79	-1.79	0.30	6 25	1		
Port Clark .....	44 5	81 44	595	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Sarnia .....	42 59	82 24	555	26.8	-4.5	17	48.0	19	-2.0	6	0.20	-1.57	0.20	1 30	..		
Southampton .....	44 30	81 21	656	19.3	-8.2	36	44.2	28	-21.2	5 21.2	2.17	-0.65	0.80	13 18	2		
Lakes St. Clair & Erie, Niagara Peninsula																	
Chatham .....	42 23	82 12	595	25.8	-5.8	25	55.0	19	3.0	4 18.4	2.18	-0.32	0.85	6 25	..		
Cattaraugus .....	42 7	82 45	506	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Grimsby .....	43 13	78 36	.....	25.8	—	3	52.0	20	2.0	6 15.6	1.15	—	0.20	7 24	..		
Peter Island .....	41 50	82 32	585	25.1	-6.0	33	68.0	27	0.0	1 12.4	2.16	0.25	2.06	3 28	..		
Port Burwell .....	42 39	80 55	592	24.1	—	3	46.0	29	-5.0	3 15.8	2.08	—	0.77	8 23	..		
Port Dover .....	42 27	80 13	655	22.5	-6.3	37	47.5	19	0.0	3 16.5	2.09	-0.13	0.74	14 17	..		
Port Stanley .....	42 40	81 13	592	24.7	-5.6	38	44.4	31	-1.0	3 16.5	1.69	-1.17	0.62	11 20	1		
St. Catharines .....	43 9	79 17	347	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Stoney Creek .....	43 13	79 45	292	26.0	-5.3	28	49.0	19	1.0	3-6 14.7	1.41	-1.60	0.45	4 27	..		
Wainwright .....	42 35	82 24	.....	24.3	—	4	49.0	29	-2.0	15 15.7	1.38	—	0.60	7 24	..		
Welland .....	42 59	79 17	577	25.6	-4.2	29	50.0	31	1.0	6 15.7	2.17	-0.80	0.68	8 23	..		
Windsor .....	42 20	83 4	625	25.0	-6.8	37	51.0	20	6.0	2 13.2	1.79	-0.69	0.60	6 25	..		

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## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1912.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION			Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Range.	Amount.	Difference from Average.	Harvest fall in month.				
ONTARIO—Continued—																	
West-Central Counties																	
Alton	43 51	80 5	1259	15.9	-9.2	26	41.0	18-20	-14.3	6 25.1	2.07	+0.12	1.10	6 25	...	...	2
Bramford	43 10	80 21	730	23.3	-3.4	32	50.0	31	0.0	2 17.5	0.90	-0.84	0.30	4 27	...	...	1
Geoph	43 33	80 16	1050	22.5	-4.8	34	47.0	17	-1.0	3 7.1	0.85	-0.82	0.50	3 28	...	...	...
London	42 51	81 13	808	24.4	-3.5	29	52.0	31	-1.5	5 19.5	2.63	-0.19	0.75	10 21	...	...	...
Paris	43 12	80 25	840	25.0	-4.9	23	50.0	19	-5.0	3 19.8	2.15	-0.37	0.92	8 23	...	...	...
Stratford	43 23	81 0	1191	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Woodstock	43 8	80 47	980	22.5	5.9	37	47.0	31	-3.0	3 17.8	1.97	+0.04	0.50	8 23	...	...	...
Lake Ontario Counties																	
Azuremurt	43 47	79 16	500	22.1	-5.8	18	45.0	19	-1.2	3 15.8	1.79	-0.47	0.90	7 24	...	...	...
Amos	43 57	79 24	886	19.8	—	4	46.2	19	-14.3	1 23.0	2.88	+0.95	1.10	6 25	...	...	...
Hamilton	43 16	79 54	333	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Luna Park	43 32	79 35	348	23.0	—	4	53.0	23	-2.0	3 16.8	...	...	...	...	...	...	...
Seaboard	43 43	79 12	548	21.8	—	4	45.0	19	-3.0	3 16.0	1.35	—	0.80	4 27	...	...	...
Toronto	43 40	79 23	330	25.7	-4.5	71	48.7	19	4.0	3 15.3	1.97	-0.23	0.85	5 3	...	...	1
Toronto Is. (Lakeview House)	43 40	79 24	330	25.7	—	6	46.0	17	4.0	3 15.1	...	...	...	...	...	...	...
Uxbridge	41 5	79 8	886	19.3	—	8	43.0	29	-15.0	3 16.9	2.46	—	0.90	7 24	...	...	...
East-Central Counties																	
Bancroft	45 1	77 53	...	16.9	-4.8	23	47.0	29	-33.0	5 29.7	—	—	—	—	...	...	...
Haliburton	45 1	78 28	1050	17.8	-6.9	23	45.0	28	-29.0	3 30.1	—	—	—	—	...	...	...
Kilmory	44 45	78 38	920	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lakeland	44 25	78 13	850	22.0	-2.9	27	52.0	30	-13.0	5 23.6	2.00	-1.17	1.50	4 27	...	...	...
Lindsay	44 20	78 45	872	19.1	-5.5	33	46.5	29	-13.1	6 22.3	3.02	+0.55	1.51	10 21	...	...	2
Markham	44 30	79 29	575	19.9	—	8	48.0	29	-17.0	6 20.0	2.12	-0.69	1.10	20 1	...	...	1
Peterboro	41 17	78 19	722	29.6	-4.9	42	49.0	29	-15.0	6 23.7	2.66	+0.06	1.60	6 25	...	...	...
Uxbridge	41 54	78 18	...	14.4	—	5	42.0	29	-28.0	3 21.2	2.10	—	1.20	5 26	...	...	...
QUEBEC—																	
Middle St. Lawrence																	
Brome	45 10	72 35	678	17.3	-5.4	31	47.0	19	-27.0	6 22.9	0.85	-0.97	0.20	6 25	...	...	...
Cup Rouge	46 46	71 18	...	15.3	—	1	43.0	19	-14.2	6 22.1	2.40	—	1.10	11 20	...	...	...
Drummond	45 55	71 21	806	20.5	—	2	50.5	19	-20.0	4 19.0	2.55	—	0.70	9 22	...	...	...
Matane	45 30	73 35	187	21.5	-4.4	34	41.7	18	-7.3	6 13.7	1.82	-2.08	1.02	10 21	...	...	2
Quebec	46 48	71 13	296	19.1	-3.9	37	43.8	18	-11.2	4 18.4	2.23	-1.03	0.81	11 20	...	...	1
St. Anne de Bellevue	45 27	73 59	...	18.7	—	5	43.2	18	-25.0	6 18.5	0.22	—	0.17	2 29	...	...	...
St. Charles	45 54	74 3	...	16.8	—	2	48.0	18	-21.5	6 35.0	—	—	—	—	...	...	...
Shawinigan Falls	46 31	72 43	...	17.5	—	9	42.0	18	-25.0	6 23.5	0.68	—	0.50	6 25	...	...	...
Sherbrooke	45 32	72 5	620	17.3	—	10	48.0	20	-25.2	4 21.9	3.57	—	1.18	13 18	...	...	...
Lower St. Lawrence & Gulf																	
Antares, E. Pt.	49 6	61 42	30	21.0	+0.8	29	31.0	18	-12.0	5	1.04	—	0.64	6 25	...	...	1
Antares, S.W. Pt.	49 52	61 32	30	21.8	+0.2	32	35.0	18	-3.0	5	3.92	+1.10	1.20	9 22	...	...	...
Antares, W. Pt.	48 25	68 53	...	21.9	—	31	47.0	18	0.0	4	3.95	—	1.20	10 21	...	...	...
Cape Chatham	49 6	66 45	...	21.0	—	0	30.0	18	0.0	5	...	...	...	...	...	...	...
Cape Melville	49 16	65 20	83	21.0	—	0	30.0	18	0.0	5	...	...	...	...	...	...	...
Father Point	48 31	68 19	20	20.7	-1.4	35	38.0	18-20	-3.0	4 14.9	3.51	+0.62	0.60	12 19	...	...	...
Lake St. John																	
Chapman	48 25	71 5	159	...	...	33	...	...	...	...	1.33	-1.85	0.70	4 27	1	...	4
Chapman 2	47 39	72 15	1333	12.7	-5.8	2	48.0	18	-33.0	5 26.2	1.00	—	0.70	4 27	1	...	...
Lake Edward	47 39	72 15	1333	8.5	—	2	39.8	19	-45.5	5 30.2	0.85	—	0.65	5 26	...	...	...
La Poudre	47 27	72 48	520	11.1	—	1	40.0	18-19	-28.0	5 28.8	0.70	—	0.70	1 30	...	...	...
Melville	48 54	72 13	369	19.5	—	1	43.0	19	-21.0	6 26.7	...	...	...	...	4	...	...
Roberval	48 31	72 13	352	...	...	...	...	...	...	...	...	...	...	...	...	...	...
The Northwestern Districts																	
Abitibi	48 33	79 22	...	9.2	-5.2	33	40.0	17-18	-33.0	3 35.1	0.80	-2.38	0.40	5 26	...	...	...
Amnogan Creeping	47 51	73 50	...	7.0	—	1	40.0	20	-49.4	5 33.2	1.05	—	0.50	4 27	...	...	...
Arnaudville	47 51	73 50	...	6.8	—	1	33.0	20	-49.4	5 33.2	1.05	—	0.50	4 27	...	...	...
White Stone Lake	48 12	75 43	...	5.5	—	1	43.0	20	-48.0	4 35.3	1.20	—	0.50	4 27	8	...	1
The North Shore																	
Clark's City	50 10	66 25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
New Brunswick																	
Chatham	47 3	65 29	21	24.9	-0.5	38	48.0	19	-11.0	6 19.7	3.72	+0.59	0.86	16 15	...	...	...
Dalhousie	48 4	66 22	31	19.5	-1.7	31	43.0	19-20	-15.0	5 22.1	3.50	+0.61	2.40	4 27	...	...	...
Fredericton	45 57	66 36	104	23.2	-0.8	40	49.0	16	-13.0	6 21.4	4.79	+0.64	1.40	10 21	...	...	...
Grand Manan	44 47	66 16	49	39.5	+0.3	28	51.7	16	9.0	4 5 14.5	3.31	-1.62	0.81	12 19	...	...	6
Moncton	46 9	64 45	59	27.4	-0.10	15	53.0	15	-8.0	5 19.5	2.90	+0.69	0.80	7 24	...	...	...
Pont Leprieux	45 1	66 25	31	20.7	+0.5	34	43.0	13 15	4.0	5	3.47	-0.91	1.15	8 26	...	...	9
St. John	45 17	65 4	70	28.7	-1.8	39	49.5	20	-13.0	5 13.4	3.64	-0.43	1.14	16 16	...	...	...
St. Stephen	45 11	67 15	35	27.0	-1.4	15	51.5	15	-21.0	6 21.6	4.03	+0.10	2.20	5 26	...	...	...
Sussex	45 38	65 38	69	28.4	+1.9	15	55.0	16	-15.0	6 18.9	4.13	-0.15	2.35	5 26	...	...	...

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1912.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION						
				Mean	Difference from average,	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Annual	Difference from average	Highest fall in month	1 Days with 01 or more	No. of fair days	No. of Auroras
NOVA SCOTIA—																	
Antigonish.....	45 38	61 59	50	27.1	—	2	58.0	30	-7.0	5	21.6	—	—	—	—	—	1
Halifax.....	44 39	63 36	88	29.9	-1.6	38	50.3	19	0.0	6	15.5	6.69	+1.35	1.40	16	15	1
Kentville.....	45 3	64 19	40	27.4	—	1	51.0	16	-10.0	6	16.5	2.55	—	0.62	9	22	—
Parsonsboro.....	45 23	64 19	40	22.3	—	15	45.0	31	8.0	26	13.5	—	—	—	5	26	—
Port Hastings.....	45 39	61 22	45	31.5	—	21	64.0	17	-13.0	5	11.6	3.53	—	0.95	8	23	—
*Sable Island, E. Pt.....	43 58	59 46	25	31.9	-1.1	29	43.0	13	+4.0	5	—	3.82	+0.67	1.00	7	—	—
Sable Island, Main Stn.....	46 10	60 10	35	27.7	-0.8	38	51.0	16	-2.4	6	16.6	5.86	+1.10	1.02	14	17	—
Sydney.....	45 22	63 18	77	28.3	+0.4	38	55.4	16	-16.2	6	19.7	3.91	+0.10	0.90	14	16	—
Truro.....	45 15	61 8	20	20.5	—	9	48.0	23	-13.0	12	14.1	4.72	—	2.10	10	19	—
*Whitehead.....	44 59	64 6	90	20.9	-0.5	11	50.2	22	-9.5	11	15.6	4.80	—	2.05	12	17	—
Windsor.....	45 7	64 20	65	24.9	-0.9	31	46.1	22	1.5	11	11.2	2.96	-1.21	0.82	12	17	—
Yarmouth.....	43 50	66 2	65	24.9	-0.9	31	46.1	22	1.5	11	11.2	2.96	-1.21	0.82	12	17	—
P. E. ISLAND—																	
Charlottetown.....	46 14	63 10	38	25.9	-1.2	37	48.0	16	-10.0	6	15.1	2.79	-0.31	0.53	13	18	1
Charlottetown (Exp. Farm).....	46 14	63 7	75	25.9	—	2	48.5	16	-9.2	6	15.2	3.63	—	0.63	17	14	—
Hamilton.....	46 25	63 48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NEWFOUNDLAND—																	
*Amor Point.....	51 28	56 51	27	15.6	—	—	38.0	14	-17.0	5	—	3.00	—	0.50	8	23	—
Burin.....	47 0	55 10	27	25.6	—	4	47.0	16	-8.0	6	18.3	2.64	—	0.40	16	15	—
*Cape Norman.....	51 38	55 52	30	16.7	—	—	33.0	16	-7.0	5-6	—	0.75	—	1.10	12	19	1
Fogo.....	49 43	54 17	30	18.3	—	29	35.0	19	-10.0	5-6	—	1.28	—	0.50	10	21	—
*Point Riche.....	50 42	57 25	35	23.3	—	4	39.5	16	-9.0	5	11.6	7.87	—	1.20	20	11	—
Port aux Basques.....	47 35	59 10	27	27.0	-1.5	39	50.0	16	-7.0	6	12.7	2.34	-2.36	0.56	13	18	—
St. John's.....	47 34	52 42	125	27.0	-1.5	39	50.0	16	-7.0	6	12.7	2.34	-2.36	0.56	13	18	—
BERMUDA—																	
Prospect.....	32 17	64 46	151	64.0	+0.9	21	73.6	22	51.0	4	10.7	4.82	-0.23	1.40	14	17	2

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS.
	Amount in inches.	No of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake	0.04	1	29	0.04	27	1.8	1	1.8	20	
Annis (Canoe Point)	0.03	1	29	0.03	28	0.5	1	0.5	15	
Armstrong	0.06	1	30	0.06	28					
Akaninna										
Beaver Lake	1.32	5	26	0.55	15		2		15-19	
Coquitlam	1.09	4	27	0.76	15					
Donnan's Island	1.10	4	27	0.58	15					
Ferguson	0.05	1	27	0.05	28	11.0	3	5.0	17	
Goldstream Lake	2.08	8	23	0.64	15					
Hydraulic										
Hornby Island	0.61	2	29	0.35	14					
Jordan River	2.22	5	26	0.77	15					
Jordan River (Bear Creek)	1.10	7	20	0.44	28	8.7	4	4.5	18	
Little Qualicum (French Creek, V.I.C.)	0.25	3	28	0.10	14-29					
Monte Creek	0.00									
Nass Harbour	0.87	2	28	0.52	31	2.0	1	2.0	17	
Shawnigan Lake	1.25	7	24	0.45	15					
ALBERTA—										
Barle						1.5	1	1.5	29	
Bismark										
Bruederheim	0.02	1	29	0.02	28	3.0	1	3.0	29	
Bittern Lake	0.17	1	29	0.17	28	1.0	1	1.0	29	
Brooks						1.2	2	1.0	18	
Campsie	0.18	1	28	0.18	28	6.0	2	5.5	29	
Caldwell						11.2	6	4.5	29	
Dorence						2.0	2	1.0	18-29	
Dunstable	R	0	28	R		5.8	3	4.6	29	
Grassy Lake						3.0	1	3.0	18	
Jumping Pound						4.0	3	5.0	12	
Lacombe										
Loch Sloy										
Lyndon						9.1	4	7.0	29	
Lincham						10.0	2	8.0	18	
Macleod						8.0	5	2.5	12-29	
Maycroft						4.8	8	2.0	29	Fog 18th
Nateby										
Okotoks						0.5	1	0.5	6	
Parksville						11.2	5	7.7	29	
Ponoka						4.2	3	2.0	19-26	
Sion	0.30	2	29	0.17	28	8.0	1	8.0	29	
Seven Persons						3.0	2	2.2	18	
Tilley							2			
SASKATCHEWAN—										
Gulf Lake						3.8	3	3.0	19	
Last Mountain										
Maple Creek						1.1	4	0.5	19	
Meadow Lake										
Willow Creek										
MANITOBA—										
Cartwright	0.10	1	27	0.10	26	3.0	3	1.5	24	
Deloraine						2.5	4	1.5	23	
Greta										
Norquay (Swan Lake)						2.0	5	0.5	4-30	
Rapid City	1.10	1	24	0.10	27	2.6	6	1.0	29	Fog 17th
Rose Bank										
ONTARIO—										
Deer Park	0.09	1	26	0.09	31	14.8	4	8.5	15	
Dutton						5.0	3	2.0	14-15	
Ensdale	0.37	1	23	0.37	18	7.5	7	2.0	16	
Georgetown	0.15	1	25	0.15	31	15.9	6	10.0	15	
Grantham	0.10	4	22	0.41	16	7.0	7	2.0	15	Fog 17th
Grand Valley						11.0	6	6.0	16	
MacCoe						10.0	3	5.0	15	
Orangeville	0.27	1	24	0.27	31	26.4	6	16.0	16	
Sydenham						10.0	2	6.0	14	
Strathroy						22.0	8	11.0	15	
Watford	0.29	1	—	0.29	31					Snow not measured
Westport						15.9	5	8.0	15	
Westminster	0.64	1	28	0.64	31	9.0	3	4.0	15-21	
Wooler						14.0	5	6.0	15	
Wesley	R	0	24	R	18-20	17.0	7	6.0	16	Fog 29th
Wattenwyl	0.11	1	26	0.11	18	6.9	4	4.2	31	
QUEBEC—										
Lacorne						10.2	3	7.0	15	
Perkins Mills						11.3	6	7.0	15	
Quinze Dam										
Tiniskaming						5.8	4	2.5	8	
NEW BRUNSWICK—										
Point Esquimaux	0.70	3	25	0.51	29	12.6	4	6.3	10	
NOVA SCOTIA—										
Big Mushmush Lake (Mahone)										
Kedgemaquooge Lake (New Grafton)										
Milton	6.56	0	21	1.55	15	3.8	1	3.8	10	
Mushmush River (Mahone)										
New Germany										
South Alton	3.28	5	21	1.27	15	8.0	2	5.0	10	
White Rock										







## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

DIRECTION OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF MARCH, 1912

STATION	DIRECTION OF WIND FROM									Total number of Observations.
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing	0	2	5	2	3	4	10	5	0	31
Didsbury	1	5	7	1	3	1	2	11	0	31
Halkirk (Emsburg)	5	2	1	5	14	21	2	12	0	62
Hillsdown	0	2	0	11	9	6	2	29	3	62
Loveland	2	1	2	5	1	11	14	0	0	31
Macleod	3	0	1	0	3	2	14	0	8	31
Pacan (Victoria)	6	13	2	8	6	15	2	7	3	62
Ranfurly (Wentfield)	3	5	7	27	0	11	6	22	12	93
SASKATCHEWAN—										
Chaplin	0	2	0	5	0	8	0	16	0	31
Crescent Lake	3	1	1	1	6	6	3	10	0	31
Estevan	0	0	3	1	12	9	1	4	1	31
Grenfell (Brownhill)	0	6	3	6	4	24	1	18	0	62
Indian Head	4	2	0	6	13	22	14	16	11	93
Larchmount (Glenbryan)	0	0	3	0	0	24	8	28	0	62
Moosomin	0	0	3	0	9	3	8	8	0	31
Muenster (St. Peter's Monastery)	0	7	0	3	0	32	0	20	0	62
Onion Lake	7	3	10	3	0	0	7	1	0	31
Pense (Gatesgarth)	0	0	1	6	0	3	6	15	0	31
Waseca	0	2	0	3	4	16	1	5	0	31
MANITOBA—										
Berens River	14	6	5	5	16	3	7	1	1	62
Brandon	5	9	5	5	2	24	11	21	11	93
Hillview	7	1	11	2	0	27	1	44	0	93
Moose Horn Bay (Atkensville)	9	12	3	7	5	11	2	7	6	62
Morden	11	3	0	4	1	15	10	10	8	62
Oak Bank	5	1	0	3	2	5	2	13	0	31
Stony Mountain	11	6	3	4	10	17	3	6	0	60
ONTARIO—										
Agincourt	5	24	12	4	2	11	5	25	2	93
Alton	17	6	7	2	16	3	37	5	0	93
Beatrice	5	2	1	4	10	3	2	18	48	93
Biram	22	6	9	3	14	1	3	4	0	62
Clinton	3	8	10	4	11	3	9	12	0	60
Cottam	19	7	12	0	14	4	6	0	0	62
Gravenhurst	9	6	7	16	11	2	13	9	20	93
Lindsay	9	10	5	8	9	11	6	15	20	93
North Bruce	16	17	8	0	23	5	15	9	0	93
Orillia	4	1	1	2	5	10	5	3	0	31
Owen Sound										
Point Clark										
Port Dover	4	10	3	2	2	3	2	5	0	31
Scarboro Junction										
Stoney Creek	5	34	14	5	0	11	9	15	0	93
Uplands	8	0	7	0	13	1	23	1	9	62
QUEBEC—										
Abitibi	15	6	20	0	16	1	33	2	0	93
Anticosti, W. Pt.	15	16	8	4	7	8	6	29	0	93
Anticosti, Heath Point	22	6	12	4	3	11	15	13	7	93
Bicquet	7	11	1	0	13	10	15	36	0	93
Brome	14	4	4	0	11	20	36	4	0	93
Cape Chatte										
Cape Magdalen	0	3	8	2	18	2	0	45	15	93
Chicoutimi	0	4	0	32	0	52	0	3	2	93
NEW BRUNSWICK—										
Dalhousie	0	1	8	1	0	0	20	0	0	30
Moncton	0	4	0	4	0	0	5	18	0	21
Pt. Lepreaux	7	7	5	2	3	17	10	26	1	78
SUSSEX										
NOVA SCOTIA—										
Kentville	1	1	1	0	6	5	14	3	0	31
Parrsboro'										
Port Hastings	1	4	0	7	0	5	0	13	1	31
Sable Island, E. Pt.	1	5	0	9	0	34	0	44	0	93
Tiuto	7	9	4	7	9	15	23	16	3	93
Whitehead										

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
MARCH, 1912.

STATION.	HOURS ENDING															
	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	
Victoria .....	02	28	49	50	64	68	70	69	71	79	69	15				
Salmon Arm .....	01	58	74	78	80	79	80	77	79	80	50	02				
Nanaimo .....		25	53	64	69	76	79	70	81	87	74	14				
Vancouver .....	02	45	63	67	73	78	82	80	84	79	80	20				
Agassiz .....	02	43	59	70	77	72	73	77	76	75	46	01				
Tranquille .....	26	67	77	80	81	80	78	81	79	70	65	27	05			
Summerland .....	18	59	63	69	72	77	76	75	77	67	59	03				
Kamloops .....	01	56	78	77	80	80	81	79	77	98	47	01				
Edmonton .....		66	87	87	87	86	87	81	81	71	49	04				
Lethbridge .....	10	37	62	76	78	81	82	82	75	75	67	20	T			
Lacombe .....		22	50	70	75	76	71	76	79	77	60	02				
Medicine Hat .....	T	12	55	68	71	78	74	75	71	64	41	02				
Fort Dunvegan .....		17	37	58	70	71	76	73	70	61	52	02				
Fort Vermilion .....		21	55	81	83	78	75	72	73	65	35	01				
Battleford .....	01	26	55	75	74	78	80	79	81	81	36					
Indian Head .....		64	73	44	54	65	77	76	71	62	36					
Moosajaw .....	63	18	37	64	72	74	69	67	67	60	35	02				
Scott .....	65	24	44	63	76	79	79	81	78	73	39	03				
Rosthern .....		30	55	75	84	85	82	81	76	75	66	12				
Brandon .....	06	19	47	67	79	82	79	73	68	62	43	23				
Winnipeg .....		28	65	75	74	73	75	72	71	66	45	01				
Halleybury .....	T	25	54	71	74	76	81	77	71	71	70	33	01			
Woodstock .....	T	26	43	56	65	69	63	57	54	48	41	01				
Lindsay .....	T	09	39	57	69	67	67	69	66	60	55	12				
Barrie .....		12	48	61	66	68	67	66	68	66	62	50	20	01		
Toronto .....	01	25	55	60	64	68	73	66	62	52	47	16				
Kingston .....		07	40	51	58	66	70	66	61	56	49	29	02			
Ottawa .....		13	52	61	71	71	67	65	72	72	69	51	13			
Montreal .....	T	23	47	59	65	62	65	66	62	59	56	52	06			
Cap Rouge .....		14	43	48	53	51	55	53	54	55	54	43	07			
Quebec .....		01	37	52	56	56	59	58	57	51	52	40	04			
Sherbrooke .....	01	15	37	39	57	60	58	57	57	55	49	43	20			
Fredericton .....		13	41	60	62	61	57	62	64	58	56	53	26			
Charlottetown .....			20	33	46	58	59	50	49	55	47	40				

	Victoria	Salmon Arm.	Nanaimo	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops	Edmonton	Lethbridge.	Lacombe.	Medicine Hat.	Fort Duvegan	Fort Vermilion	Battleford.	Indian Head	Moose Jaw.	Scott.	Rosthern.	Brandon	Winnipeg	Haliburton	Woodstock.	Lindsay	Barrie.	Toronto	Kingston	Ottawa.	Montreal	Cap Rouge	Quebec	Sherbrooke	Fredericton.	Charlottetown
Registered duration in hours .....	197	229	217	234	268	251	223	218	244	221	204	156	183		216	156	171	189	223	201	189	241	164	177	203	183	172	211	194	161	164	172	190	142
Percentage of possible duration % .....	53	62	59	62	57	68	61	61	67	63	56	52	50		56	43	48	51	61	57	54	52	45	48	55	50	47	57	57	45	45	47	51	38
Difference from average % .....	+11	+24	-	+30	-	-	-	-	-	-	-	-	-	-	+7	+9	-	-	-	+12	+5	-	+12	+7	+17	+9	+7	+17	+12	-	-4	-	+1	-
Maximum percentage in one day % .....	87	86	88	61	83	94	88	90	90	92	86	80	90		83	71	80	100	97	88	85	95	91	86	100	87	96	90	97	91	88	95	94	81
Date of maximum .....	10	5	7	10	20	8	22	3	6	10	1	1	4		10	1	10	1	1	1	4	9	19	6	9	25	5	16	30	5	6	25	23	23
Number of days completely clouded .....	3	1	2	1	2	2	3	3	1	2	1	3	5		1	2	1	1	2	2	4	1	2	4	3	1	2	4	6	6	7	6	10	

*Auroras recorded:*

1. White Shore Lake II.
- 2.
- 3.
4. White Shore Lake III.
- 5.
6. White Shore Lake IV, Fort Vermilion III, Fort Qu'Appelle IV, Crescent Lake IV, Sion VI.
7. Hillsdown III, Halkirk, Treherne IV, Oakbank II, Aitkensville III, Aweme II, Deloraine, Fort Vermilion III, Muenster III, Glenbryan II, Fort Qu'Appelle IV, Waitefield II, Big Creek III, Crescent Lake IV, Oliver, Prince IV, Campsie IV, Sion IV, Chagoness IV.
8. Hillsdown III, Halkirk, Treherne IV, Aitkensville III, Aweme III, Schreiber IV, Kakabeka Falls IV, Deloraine, Haileybury IV, Fort Vermilion IV, Muenster IV, Melfort, Glenbryan II, Fort Qu'Appelle IV, Campsie IV, Sion IV, Chagoness IV.
9. Halkirk, Pakan III, Kenora IV, Mistassini IV, Emsdale IV, Deloraine, Fort Vermilion IV, Waitefield III, Oliver, Sion IV, Chagoness IV.
10. Pakan III, Treherne IV, Aitkensville IV, Madoe II, Birnam III, White Shore Lake IV, Oliver, Emsdale III, Haileybury IV, Muenster IV, Melfort IV, Fort Qu'Appelle IV, Grenfell, Sion IV, Chagoness IV.
11. Aweme IV, Schreiber IV, Mistassini IV, White Shore Lake III, Muenster IV, Oliver, Sion IV.
12. White Shore Lake IV, Oliver.
13. White Shore Lake IV, Waitefield IV, Oliver.
14. Oliver.
15. Haileybury IV, Fort Vermilion II, Muenster IV.
16. Fort Vermilion II.
- 17.
18. Fort Vermilion II.
- 19.
- 20.
21. Halifax IV, Quebec IV, Winnipeg III, Treherne IV, Aitkensville III, Aweme III, Schreiber IV, Lucknow IV, Clinton IV, Mistassini III, White Shore Lake IV.
22. Minnedosa III, Aitkensville IV, Cartwright IV, Wolfville IV, Crescent Lake IV, Sion II.
23. Mistassini IV.
24. Charlottetown IV, Chicoutimi.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.

*Thunder recorded:*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
20. Yarmouth, Kentville.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.

## FORECASTS FOR MARCH 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1149 These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta .....	77	57	11	9	81.2
Saskatchewan .....	80	63	12	5	86.3
Manitoba .....	80	62	16	2	87.5
Lake Superior .....	82	53	23	6	78.7
Lower Lake Region .....	106	86	17	3	89.2
Georgian Bay .....	106	82	18	6	85.8
Ottawa Valley .....	93	74	10	9	84.9
Upper St. Lawrence .....	93	78	11	4	89.8
Lower St. Lawrence .....	101	86	10	5	90.1
Gulf .....	101	84	12	5	89.1
Maritime Provinces West .....	117	87	21	9	83.3
Maritime Provinces East .....	113	83	20	10	82.3
Total .....	1149	895	181	73	85.8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
July 26, 1912.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

APRIL, 1912

No. 4

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

The mean temperature did not differ very much from the average, but warm, sunny days were of but infrequent occurrence, equable temperatures and frequent showers leading many observers to characterize the weather of the month as "cold and backward." Differences from average which exceeded 1° occurred in the southeast Kootenay and the Queen Charlotte Islands only, amounting to 2° above and 4° below, respectively.

### THE WESTERN PROVINCES.

Heavy frost was of general occurrence on the 6th and also, locally, on the 26th. Except in the northern districts, temperatures of 60° or higher were recorded on 8 days. The mean of the month ranged between 2° and 4° above normal.

In all districts of Saskatchewan the temperatures decreased to 20° or lower on the 15th and 26th, and locally on the 12th, 27th and 28th, also. The warmest days of the month were, generally, the 9th and 10th when many stations recorded 70°. At some places lying between the south branch of the Saskatchewan River and the International Boundary, temperatures exceeding 70° occurred on the 29th. The difference from normal was from 3° to 5° over the greater portion of the province.

On the 16th and 26th the lowest temperatures of the month were recorded in Manitoba and were in some cases below 15°. On the 4th and 5th occurred the highest readings, ranging between 70° and 78°. Days upon which readings higher than 60° were registered averaged about 10. The mean temperature differed from normal by from 2° to 5° above.

### ONTARIO.

The first week was very cold throughout the province, but especially in the Districts of Algoma, Nipissing, Parry Sound, Muskoka, and in the Ottawa Valley, where minimum temperatures for the first five days were in the neighborhood of zero; 2° to 7° below zero having been recorded at points in Parry Sound on the 1st and 4th, and 6° below on the 1st on the Nipissing watershed. On the 15th or 16th 70° or higher was registered, while on the 22nd and 26th maxima reached 60°, but except on those days there was no really warm weather during April. The normal mean daily temperature for this season of the year was attained locally in the counties of the extreme southwest, but over a greater portion of the province, it lacked from 2° to 4°.



## QUEBEC.

The first week began with moderate temperatures which rose steadily until the 7th and 8th, attaining a maximum of over 60°. But on the evening of the 8th there was a sudden change to much colder conditions; the temperature decreasing 70° in less than 24 hours at White Shore Lake, and Mistassini, 50° at Chicoutimi, and 40° on the St. Lawrence. In the north the weather remained very cold till the 15th, but the last two weeks were moderately warm. Mean temperatures were from 1° to 3° below average along the St. Lawrence, but in the northern districts 4° or more below.

## THE MARITIME PROVINCES.

In northern New Brunswick minima lower than 20° were registered on the 2nd, 5th, 9th, 11th, 13th, 14th, 21st, 27th, and in southern New Brunswick and Nova Scotia, on the 5th and 9th, and locally on the 14th. The warmest day was the 16th, when 60° was exceeded in the northern counties and 70° in southern Nova Scotia. In Northern New Brunswick the mean temperature was more than 2° lower than normal, while in southern Nova Scotia the deficiency was negligible. Elsewhere the difference was about 1°.

## PRECIPITATION.

### BRITISH COLUMBIA.

On the North Coast, the Queen Charlotte Islands, the North Columbia River and, locally, on the Fraser River and North Vancouver Island, the precipitation was less than normal. Over the remainder of the province there was an excess, precipitation having been recorded on more than 12 days. During the first week snow fell at a few northern points, but elsewhere there was none.

### THE WESTERN PROVINCES.

Precipitation was registered in Alberta on an average of 5 days, consisting largely of rain, the aggregate exceeding the normal by a small amount.

In Saskatchewan there was a general deficiency which was in some cases relatively large. Many districts reported no precipitation during the month, while at many others it was recorded on but 1 or 2 days.

The number of days of precipitation in Manitoba ranged from 3 to 10, while the total amount was in most instances about one-third of the normal in excess.

### ONTARIO.

Except in the District of Nipissing and locally in the south-western counties, there was a general excess amounting to about twenty-five per cent. of the average. Snow was recorded on the 1st throughout the province and less generally on the 7th. Rain occurred on from 3 to 15 days.

## QUEBEC.

Stations on the Gulf of St. Lawrence reported a large deficiency, but elsewhere in Quebec the excess was the same as in Ontario.

## THE MARITIME PROVINCES.

In Prince Edward Island and locally in southern New Brunswick there was a small excess, but in Nova Scotia there was a general deficiency which was in some instances more than sixty per cent.

## ATMOSPHERIC PRESSURE.

Low barometric pressure predominated during April with the result that the values of the mean pressure were subnormal in most localities, although in some parts of the Maritime Provinces the normal was reached. Kamloops, B.C., and Banff, Alta., with a negative departure of 0.17 of an inch showed the greatest divergence from the normal.

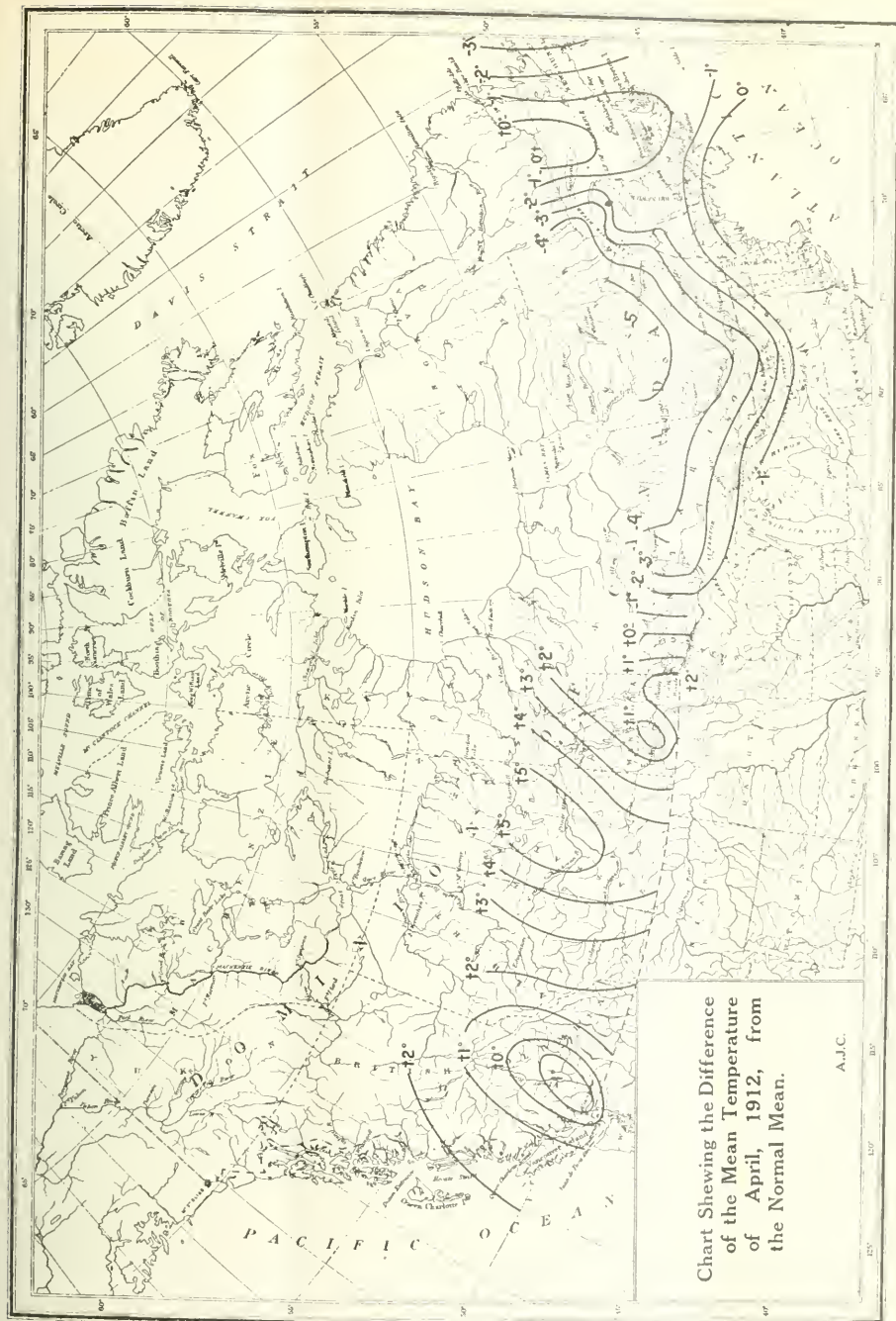


Chart Shewing the Difference  
of the Mean Temperature  
of April, 1912, from  
the Normal Mean.

A.J.C.

## HIGH AREAS.

Eight areas of high pressure were traced. Five first appeared to the northward of Manitoba and three on the Pacific States coasts. They all eventually reached the Atlantic, two passing over Newfoundland, two off the Cape Breton coast and the remaining four off the Middle and South Atlantic coasts. The systems were in nearly all instances of quite moderate intensity, but usually attended by much cool weather.

## LOW AREAS.

Nine areas of low pressure were charted. Three first appeared on the Alaskan coast, one over Vancouver Island, three in the Middle Pacific States, one in the South Pacific States and one in Southern Texas. Five of the areas passed over and four passed a little to the southward of the Great Lakes, seven eventually reaching the Gulf of St. Lawrence, while the remaining two moved out to sea off the Middle Atlantic coast. Several of the areas were of considerable energy, others again were only of very moderate strength.

## WINDS, APRIL, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
BRITISH COLUMBIA.							
Victoria .....	5690	359	34	1	18	9	SW.
Point Garry.....	5369	426	31	1	3	6	N.
ALBERTA.							
Edmonton.....	4891	414	26	.....	2	8	NE.
Calgary.....	4601	347	26	.....	5	3	NW, NE.
SASKATCHEWAN.							
Battleford.....	7468	801	41	3	6	6	SE.
Swift Current.....	6416	473	28	.....	8	8	S.
Qu'Appelle.....	8421	582	32	1	9	7	SE.
MANITOBA.							
Winnipeg .....	8680	518	38	2	13	8	N.
The Pas.....	5751	347	.....	.....	.....	.....	E.
ONTARIO.							
Port Arthur.....	6824	584	41	1	6	8	NW.
Parry Sound.....	6471	513	28	.....	7	11	SE.
Southampton.....	9199	597	38	3	14	9	S.
Toronto.....	10446	584	36	7	11	5	NW
Woodstock.....	8711	542	28	.....	18	3	SW, N.W.
QUEBEC.							
Quebec.....	10374	631	40	9	17	5	NE.
MARITIME PROVINCES.							
Fredericton.....	7004	516	31	2	11	10	NW.
St. John.....	8857	660	42	5	14	4	NW.
Halifax.....	9139	492	34	4	14	5	NW.
Charlottetown.....	5791	381	24	.....	6	9	S. NW.
Plat Point.....	10112	636	37	7	14	4	SW.
Point Lepreau.....	10934	745	43	10	9	4	NW.

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1912.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.											
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 0.1 or more.	No. of fair days.	No. of auras.	No. of thunderstorms.	No. of fogs.			
<b>BRITISH COLUMBIA—</b>																						
<i>S. Vancouver Island</i>																						
Alberni (Beaver Creek)	49 15	124 49	300	46.2	-2.1	17	65.0	15	26.0	5	19.4	1.75	-2.81	0.26	18	12	..	..	..			
Clayoquot	49 11	123 47	40	46.4	+0.7	13	57.0	8 22	33.0	5	12.8	2.03	-0.69	0.92	17	13	..	..	..			
Cowichan (Tzouhalem)	48 25	123 42	150	45.1	—	6	63.0	1	27.6	5	19.3	1.85	+0.03	0.40	8	23	..	..	..			
Ladner	49 05	123 4	..	50.2	+2.5	12	66.0	15	30.0	4 14	18.5	1.83	+0.15	0.35	15	15	..	..	..			
Nanaimo	49 10	123 37	125	46.1	-0.4	12	60.0	16	29.8	4	15.6	1.83	+0.15	0.35	15	15	..	..	..			
Salt Spring Island	48 50	123 20	46.5	—	—	3	59.0	16	30.0	5	13.6	1.83	—	0.47	11	19	..	..	..			
Sooke	48 41	123 44	25	46.0	—	2	60.0	8	27.0	4	14.4	2.00	—	0.60	8	22	..	..	..			
Victoria	48 24	123 19	85	48.6	-0.3	24	61.8	24	30.2	5	17.4	1.30	+0.50	0.57	13	17	..	..	..			
<i>N. Vancouver Island</i>																						
Holberg	50 39	128 18	..	41.4	—	4	60.8	17	33.0	3	9.6	12.76	—	5.40	19	11	..	..	..			
Swanson Bay	50 37	126 53	..	42.9	—	3	62.0	30	32.0	3	11.4	—	—	—	—	—	..	..	..			
Triangle Island	50 22	129 5	680	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Winter Harbour (Quatsino)	50 32	127 40	..	45.1	—	5	59.0	17	33.0	16	14.2	3.91	—	1.07	15	15	..	..	..			
<i>Lower Fraser River</i>																						
Aqassiz	49 14	121 31	52	46.2	-0.7	20	63.0	15	29.0	3	20.8	4.26	+0.06	0.78	12	18	..	..	..			
Chilliwack	49 10	121 57	21	47.7	—	11	64.0	1 16	31.0	5	15.5	2.13	-1.44	0.50	16	14	1	..	..			
Hope	49 23	121 25	..	49.0	—	3	70.0	15-16	32.0	15-30	22.9	10.44	—	2.07	21	0	..	..	..			
New Westminster	49 13	122 54	330	47.2	-1.1	24	62.0	26	28.0	5	15.2	4.26	+0.97	0.77	12	18	..	..	..			
North Nicomen	49 12	122 2	50	48.5	+0.6	20	65.0	16	30.0	5	16.6	3.19	-1.83	0.54	15	15	..	..	..			
Pemberton Hatchery	50 20	122 33	..	46.5	—	4	67.5	21	25.5	5	18.9	1.10	—	0.35	9	21	..	..	..			
Ruskin (Slave Falls)	49 16	122 13	125	46.0	—	3	66.0	16	29.0	12-15	18.7	2.89	—	0.74	13	17	..	..	..			
Steveston (Garry Point)	49 21	123 27	..	46.2	-0.4	17	59.5	2	27.0	5	15.5	4.22	+0.57	0.61	12	18	..	..	..			
Vancouver	49 17	123 5	136	49.7	+0.7	12	62.5	1	31.1	5	12.5	3.02	+0.88	0.80	13	17	..	..	..			
<i>Upper Fraser River</i>																						
Babine Lake	55 28	126 26	..	39.5	+1.1	25	54.0	29	14.0	4	15.9	2.25	+0.29	0.80	7	23	..	..	..			
Barkerville	53 02	121 35	4180	38.9	—	9	59.0	21	12.0	5	23.5	1.56	—	0.21	7	23	2	..	..			
Chilcoot (Big Creek)	51 40	123 0	3100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Fort St. James (Stunrts Lake)	54 28	124 12	2280	36.4	—	19	57.5	29	13.0	5	19.6	1.04	—	0.65	7	23	1	..	..			
Hydraulic	..	..	..	48.6	—	1	65.0	22	20.0	18	26.5	1.43	—	0.29	8	22	..	..	..			
Quesnelle	52 59	122 30	1700	43.2	-0.3	17	65.0	18-22	18.0	5	26.1	0.88	+0.54	0.32	7	23	..	..	..			
<i>Okanagan Valley</i>																						
Fairview	49 11	119 36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Hedley	49 35	120 10	..	46.8	—	9	71.0	2	26.0	4	20.4	1.36	—	0.29	12	18	..	..	..			
Hedley (Nickel Plate)	..	..	..	49.7	—	4	70.0	9	28.0	4	16.0	21.80	—	2.90	16	14	..	..	..			
Keremeos	49 15	119 35	900	47.7	—	5	67.0	2-8	33.0	5	17.3	1.15	—	0.30	7	23	..	..	..			
Okanagan Mission (Kelowna)	49 52	119 29	1200	47.8	+1.5	13	64.0	2-9	30.0	2-8	21.0	1.13	+0.66	0.28	9	21	..	..	..			
Pentiction	49 29	119 35	..	47.7	—	3	68.0	2	21.0	2	24.6	1.15	—	0.40	9	21	..	..	..			
Princeton	49 29	120 29	1650	44.6	-0.1	15	66.0	8	20.0	5	20.3	1.15	+0.60	0.46	8	22	..	..	..			
Summerland	49 57	119 0	1100	47.3	—	5	65.0	2	32.0	4	19.2	1.61	—	0.47	7	23	..	..	..			
Vernon (Coldstream Ranch)	50 14	119 15	1246	47.3	+1.0	18	65.0	9-21	27.0	5	21.8	1.10	+0.61	0.33	8	22	..	..	..			
<i>West Kootenay</i>																						
Boswell	49 19	116 41	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Crawford Bay	49 45	116 45	2000	47.0	—	1	68.0	10	27.0	5	24.2	0.84	—	0.18	13	17	..	..	..			
Fruitvale	49 9	117 31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Grand Forks	49 2	118 27	..	47.1	—	2	71.0	8	27.0	1	24.3	1.31	—	0.35	14	16	..	..	4			
Greenwood	49 5	118 49	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Kaslo	49 52	117 0	1752	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Nakusp	50 29	117 50	1390	45.1	—	1	63.0	21	27.5	6	18.8	0.93	—	0.34	2	21	..	..	..			
Needles	49 40	118 9	..	46.5	—	3	62.0	12-15	28.0	6	23.8	0.70	—	0.30	3	27	..	..	2			
Nelson	49 29	117 21	1760	47.9	—	9	73.0	21	29.0	6	21.5	1.38	+0.08	0.24	12	18	..	..	..			
Rossland	49 5	117 48	3400	43.1	—	8	62.0	9	28.0	5-6	14.8	2.85	—	0.62	13	17	..	..	..			
<i>East Kootenay</i>																						
Akamna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Cranbrook	49 30	115 50	..	44.9	—	3	69.0	9-11	18.0	6	29.0	0.35	—	0.10	6	24	..	..	..			
Tobacco Plains (Elko)	49 1	115 5	2684	46.8	+1.9	17	71.0	10	21.0	5	22.8	1.24	+0.29	0.85	3	27	..	..	1			
Wilmer	50 34	116 14	..	44.6	—	3	67.0	11	18.0	6	24.8	0.35	—	0.26	2	28	..	..	..			
<i>Thompson River</i>																						
Enderby	50 32	119 7	1180	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Kamloops	50 41	120 29	1245	49.0	-0.9	20	68.0	2-22	26.0	5	21.5	1.36	+0.98	0.47	16	20	..	..	..			
Nicola Lake	50 9	120 39	2120	43.9	-0.5	17	75.0	22	21.0	5	22.8	1.50	+0.94	0.90	5	23	..	..	..			
Salmon Arm (Rap Falls)	50 42	119 35	1152	46.9	—	11	67.0	21	29.0	5	21.2	1.55	+0.71	0.34	14	16	..	..	2 3			
Tranquille	50 41	120 29	..	48.8	—	4	68.0	2-21	27.0	5	22.1	1.22	—	0.35	9	21	..	..	..			
<i>North Columbia River</i>																						
Golden	51 16	116 55	2550	44.2	—	9	67.0	10	24.0	22	23.7	0.78	—	0.45	4	26	..	..	..			
Gleazier	51 14	117 29	4072	37.1	—	15	52.0	20	17.0	6	13.1	1.73	-1.17	0.80	11	19	..	..	..			
Revelstoke	51 0	118 6	1476	45.4	—	12	65.0	13	29.0	6	22.2	1.93	-0.07	0.30	14	16	..	..	..			

\* Stations not furnished with Registering Thermometers

STATION.	Elevation above sea level, in feet.			TEMPERATURE.							PRECIPITATION.				Days with 0.1 or more.			
	Latitude N.	Longitude W.		Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.
BRITISH COLUMBIA—Con.																		
North Coast																		
Bella Coola	52 40	126 54	150	45.3	+ 0.2	13	63.0	30	27.0	16-17	21.0	1.76	-0.02	0.49	15	15		
Klathada																		
Prince Rupert	54 18	130 18	170	43.1	—	3	61.5	29	30.0	4-5	13.8	8.66	—	0.32	19	11		1
Stewart	56 1	130 1	215	40.0	—	4	64.0	9-30	25.0	23	18.6	2.82	—	2.40	12	18		
Queen Charlotte Islands																		
Ikeda Bay	52 17	131 7	5															
Masset	53 58	132 9	30	45.0	-3.7	15	57.0	19-22	32.0	4	13.6	1.63	-3.26	0.23	9	11		
Yakon Boundary																		
Atlin	59 35	133 35	2240	33.7	—	7	54.0	29	8.5	4	18.4	0.26	—	0.23	3	27		
YUKON—																		
Carecross	60 11	134 34	2171	33.6	—	5	57.0	23	10.0	5	19.9	0.80	—	0.30	6	24		
Dudley	64 4	139 29	1200	31.0	—		55.0	19-27	0.0	5	27.6							
White Horse																		
ALBERTA—																		
N. Saskatchewan River																		
Coronation				44.8	—	1	69.0	19	12.0	22	26.3	0.31	—	0.09	5	25		
Dayland	55 52	112 17		37.4	—	5	65.0	29	16.0	6	23.2	0.31	—	0.29	3	27		
Edmonton	53 33	113 30	2158	43.8	+3.2	29	69.0	2	23.0	6	26.0	1.57	+0.73	0.35	10	20		1
Edmonton	52 0	112 0	2795	40.6	—	2	69.5	10	15.2	6	25.5	0.76	—	0.28	5	25		
Glit Edge	52 50	110 45																
Halkirk (Emsburg)	52 17	112 10		41.1	—	3	69.0	10-29	26.0	14	21.8	0.62	—	0.23	7	23	3	
Loveland	52 30	111 59		41.9	—	2	69.0	10	18.0	6-23	27.5	0.10	—	0.10	1	29		
Pakan (Victoria)	54 0	112 31		41.0	—	10	63.9	18	13.9	6	26.3	0.91	—	0.30	6	24		1
Ranfurly (Waitefield)	53 29	111 38	2000	41.1	—	8	65.0	2	13.4	26	27.0	0.52	—	0.19	6	24	1	2
Wetaskiwin	52 58	113 23	2480															
The Red Deer River																		
Alix	52 24	113 10		43.2	—	7	75.0	26	15.0	6	28.1	0.99	—	0.38	6	24		1
Brooks	50 34	111 54		47.1	—	1	78.0	14	21.0	6	33.4	0.74	—	0.57	2	28		
Delia	51 38	112 25		41.8	—	6	65.5	8	22.0	20	23.9	0.45	—	0.16	5	25		
Didsbury	51 40	114 8	3300	42.5	—	10	66.0	2-7	20.0	6	23.7	1.62	—	0.77	6	24		
Edkville	52 23	114 22																
Harmattan	51 43	114 23	3500	38.8	—	5	64.0	3	11.0	6	27.1	1.15	—	0.40	6	24		2
Hillsdown	52 14	113 29	2806	42.9	—	9	68.5	23	18.0	6	24.0	0.69	+0.23	0.69	10	20	2	1
Lacombe	52 58	113 44	2783	41.9	—	5	62.9	7	17.9	6	28.9	1.29	—	0.55	9	21		
Red Deer	52 16	113 49	2806															
Threehills Creek	51 30	113 11																
The Bow River																		
Calgary	51 2	114 2	3389	41.2	+1.5	28	65.0	9	14.0	6	24.6	2.05	+1.36	0.46	9	21		
Cardston	49 12	113 18				1	57.7	2	10.6	6	—	1.35	—	0.56	6	24		
Furman (Playle Creek)																		
Gleichen	50 59	112 54	2952	41.9	—	12	66.0	10	17.0	6	25.7	1.63	—	1.60	2	28		
High River	50 35	113 53	3394	41.7	—	9	65.0	8-9	15.0	6	25.8	2.30	—	1.50	3	27		
Lawrence (Parkland)	50 16	113 26		44.4	—	5	72.0	18	12.0	6	33.4	0.94	—	0.69	4	24		
Lethbridge	49 42	112 51	2961	46.5	—	11	75.0	10	18.8	6	29.0	0.45	—	0.14	8	22		
Lethbridge (Exp. Farm)	49 43	112 51		44.3	—	5	71.0	8	17.4	6	28.0	0.20	—	0.08	6	24		
Macleod	49 44	113 24	3128	44.6	+2.0	17	69.0	10	19.0	6	23.7	0.67	+0.14	0.24	7	23		
Medicine Hat	50 1	110 37	2161	48.7	+4.1	28	74.0	10	25.0	6	28.3	0.94	+0.35	0.60	4	26		
Oyen	49 0	114 4	3750	42.1	—	1	70.1	10	18.2	5	26.1	0.51	—	0.40	3	27	1	1
Picher Creek	49 0	114 4																
Sundial	50 6	112 34		43.7	—	1	70.1	8	10.0	5	25.8	0.41	—	0.26	3	27		
Rocky Mountains																		
Banff	51 10	115 34	4542	39.2	+2.6	17	59.1	10	17.0	6	20.6	1.35	+0.29	0.48	13	17		
Blainmore	49 10	114 30	4225															
Athabasca River																		
Athabasca Landing	54 43	113 17	1650	39.7	—	9	65.0	2	21.0	17-23	21.0	1.13	—	0.68	4	26		
Fort Resolution	61 9	113 52		21.0	—		54.0	17	-13.0	6	18.7	0.19	—	0.19	1	29		
Lumford	54 33	114 10		40.3	—	3	66.4	2	15.0	6	26.5	0.73	—	0.36	4	26		
Pembina	54 12	114 0		41.0	—	4	66.0	2	0.0	10	34.2	0.70	—	0.55	2	28		
Peace River																		
Duvernay	55 56	118 35	1305															
Fort Vermilion	58 27	116 3		34.7	—	7	56.0	17	10.5	11	27.1	0.47	—	0.40	2	28		
Fort Vermilion (2)				36.3	—		60.5	19	11.0	11	24.7	0.73	—	0.30	6	25	3	
Peace River Crossing	56 15	117 15		39.7	—	5	64.0	28	17.0	6	25.4	0.85	—	0.50	4	26	3	1
Spirit River	55 30	118 47																



## DEPARTMENT OF MARINE AND FISHERIES, CANADA.—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1912.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.												
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	Days with .01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.			
<b>SASKATCHEWAN.</b>																						
<i>Qu'Appelle River</i>																						
Broadview	50 23	102 53	1960	30.9	+ 2.8	18	69.0	10	12.0	15	29.3	1.01	-0.07	0.30	9	21	1	1	1			
Brownhill (Greenfell)	50 23	102 53	1957	30.9	—	18	69.0	10	12.0	15	29.3	1.01	-0.07	0.30	9	21	1	1	1			
Brownlee	50 45	106 0	—	38.6	—	7	65.1	3	16.9	15	26.2	1.03	—	0.24	7	23	5	—	—			
Crescent Lake	50 59	102 25	1658	41.5	—	8	69.0	9	22.0	15	20.7	0.99	—	0.52	3	27	—	—	—			
Estevan	49 12	103 4	1858	41.4	—	1	74.1	9	16.8	6	23.0	0.86	—	0.19	9	27	1	—	—			
Fort Qu'Appelle	51 5	103 24	—	36.3	—	6	62.0	10	12.0	15	24.3	0.10	—	0.10	1	29	—	—	—			
Hubbard (Drumhage)	52 12	105 9	—	30.6	—	5	57.0	16	8.0	27	21.9	2.28	—	0.51	8	22	—	—	—			
Humboldt	51 22	105 23	—	40.1	—	1	68.0	30	11.0	15	30.1	0.10	—	0.10	1	29	2	—	—			
Imperial	50 28	103 40	1924	40.6	+ 1.7	22	78.0	21	12.0	5	27.0	0.70	-0.18	0.20	7	23	1	—	—			
Indian Head	49 43	102 2	2064	42.8	+ 4.0	17	72.0	29	13.0	15	23.3	0.41	-0.10	0.18	5	25	1	—	—			
Maton	50 21	105 35	1759	40.0	—	10	68.0	9	19.0	15	26.4	0.20	—	0.20	1	29	—	—	—			
Moose Jaw	50 0	101 37	1884	36.8	—	7	59.0	9	10.0	15	23.2	0.46	—	0.30	3	27	2	1	—			
Mossomin	52 0	105 0	1870	38.4	—	1	69.0	3	12.0	26	28.7	0.18	—	0.18	1	29	—	—	—			
Muenster (St. Peter's)	52 25	103 9	—	42.5	+ 1.1	16	17.0	3-9	15.0	14	29.3	0.62	-0.04	0.28	5	25	3	1	—			
Pilger	50 50	103 47	2115	40.4	+ 4.4	28	68.5	3	17.0	6	23.4	1.29	+0.18	0.30	9	21	—	—	—			
Pense (Gatesgarth)	52 4	104 14	1600	36.6	—	1	59.0	9	14.0	26	26.1	0.55	—	0.22	1	26	—	—	—			
Qu'Appelle	50 27	104 37	1885	40.8	+ 3.6	26	67.0	3	16.0	28	27.3	0.53	-0.21	0.22	8	22	—	—	—			
Quail Lake	50 27	104 37	1885	40.5	—	67.0	29	17.0	11	22.9	0.19	—	—	0.19	1	29	—	—	—			
Regina	50 39	102 4	—	33.8	—	3	63.0	5-11	19.0	37	21.5	0.42	—	0.18	3	27	—	—	—			
Saskatoon	51 11	102 29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>S. Saskatchewan River</b>																						
Chaplin	50 26	106 39	2202	42.2	+ 0.9	25	75.0	29	11.0	13	34.4	0.21	-1.03	0.11	2	28	1	1	—			
East End	49 31	108 49	—	36.7	—	5	63.0	9	10.6	6	20.5	0.44	—	0.10	9	21	1	—	—			
Kelvinhurst	49 21	109 29	—	41.4	—	2	69.0	30	15.2	26	28.7	0.41	—	0.15	6	24	5	4	—			
Lehigh (Glenbray)	49 55	109 28	3500	40.7	—	3	69.0	15-27	12.0	26	28.9	0.00	—	0.00	0	30	—	—	—			
Maple Creek (Divide)	51 20	108 57	—	40.6	—	2	71.2	30	15.0	26	27.3	0.06	—	0.06	1	29	—	—	—			
Oliver	51 46	108 10	—	44.2	+ 3.2	26	70.0	29	20.0	15	25.3	0.42	-0.33	0.12	8	22	—	—	—			
Rathmullen	50 29	107 45	2439	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Swift Current	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>N. Saskatchewan River</b>																						
Battleford	52 41	108 20	1620	43.0	+ 5.0	22	70.0	29	20.0	36	26.1	0.03	-0.38	0.02	2	28	—	—	—			
Lloydminster	53 18	110 0	—	38.6	—	5	65.0	4	12.0	6	26.25	0.45	—	0.45	1	29	—	—	—			
Langford	52 5	109 34	—	40.1	—	2	69.0	29	11.0	26	27.3	0.06	—	0.05	2	28	—	—	—			
Onion Lake	53 52	109 59	—	36.5	—	7	75.0	1	10.0	7	23.4	0.09	—	0.00	0	30	—	—	—			
Prince Meeta	51 6	108 20	1700	39.5	—	5	67.0	6	14.0	29	31.0	0.08	—	0.08	1	29	—	—	—			
Scott (Ex. Farm)	51 59	109 30	—	40.7	—	5	67.0	29	16.5	15	27.2	0.00	—	0.00	0	30	—	—	—			
Waseca	53 6	109 29	—	39.8	—	5	64.0	3-10	12.0	6	26.5	0.72	—	0.63	2	28	4	—	—			
<b>The Saskatchewan Forks</b>																						
Chazoune	52 32	104 13	—	39.4	—	1	65.0	9	18.0	26	24.9	0.45	—	0.20	3	27	2	—	—			
Duck Lake	52 54	106 20	—	37.1	—	3	63.0	9	13.0	26	24.7	0.47	—	0.28	3	27	2	—	—			
Melfort	52 47	104 30	—	38.8	—	64.5	9	16.0	25.3	0.25	—	—	—	0.36	4	26	—	—	—			
Prince Albert	53 10	106 0	1432	39.2	—	2	63.0	11	16.8	15	24.8	0.67	—	0.36	4	26	—	—	—			
Rosthern	52 40	106 20	1657	31.7	+ 4.6	11	69.0	10	13.0	15	28.8	0.06	-0.31	0.06	1	29	—	—	—			
Saskatoon	52 13	106 30	1571	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>Lower Saskatchewan River</b>																						
Last River	—	—	—	37.2	—	—	67.0	19	13.0	26	25.5	1.14	—	1.01	3	27	—	—	—			
Cumberland House	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>MANITOBA.</b>																						
<i>Qu'Appelle and Assiniboine Rivers</i>																						
Awenne (St. Albans)	49 42	99 35	1180	41.0	+ 4.9	27	72.5	4	13.0	16	25.7	1.33	+0.22	0.44	10	20	4	—	—			
Battle	50 25	101 1	1703	40.7	+ 0.4	24	71.9	4	14.0	16	25.2	1.56	+0.81	0.60	7	23	2	—	—			
Brandon	49 51	99 57	1176	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Carberry	49 52	99 20	1258	39.7	—	7	73.0	5	16.0	16	25.0	1.70	—	1.30	7	23	—	—	—			
Carman	49 31	98 0	849	39.4	+ 1.3	23	66.0	4	19.0	16	20.6	1.07	-0.62	0.40	3	27	—	—	—			
Cypress River	50 15	99 50	1699	39.2	+ 1.7	28	67.0	4	14.5	27	23.3	1.26	+0.38	0.81	5	25	1	—	—			
Hillview	49 24	99 38	1353	39.2	—	1	69.0	22-24	19.0	2	18.2	0.13	—	0.05	3	27	—	—	—			
Minneapolis	49 14	99 51	1640	39.9	—	3	68.5	30	22.7	20	16.1	2.06	—	0.90	3	27	—	—	—			
Ninette	49 11	101 5	1531	42.3	—	8	72.0	10	10.0	16	26.2	1.73	—	0.55	5	25	—	—	—			
Ninette	49 34	100 58	1400	38.1	-0.6	22	63.0	11	11.0	16	19.5	2.47	+0.95	1.20	5	25	—	—	—			
Pipestone	49 57	98 17	—	39.1	—	7	74.0	5	15.0	16	22.4	2.78	—	1.47	7	23	—	—	—			
Portage la Prairie	50 42	101 20	—	36.8	+ 1.7	19	62.0	4	14.0	7	23.9	0.45	-0.47	0.15	7	23	—	—	—			
Portage la Prairie (2)	49 56	98 40	—	36.8	+ 1.4	17	73.0	4	12.0	16	21.9	3.56	—	1.20	9	21	2	—	—			
Russell	50 42	101 20	—	42.4	—	7	72.0	3	18.0	26	25.1	0.45	—	0.25	2	28	—	—	—			
Treherne	49 56	98 40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Verdon	49 51	100 55	1444	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>The Red River</b>																						
Almospa	49 14	99 20	—	40.6	+ 5.1	10	78.0	4	13.0	16	27	24.1	3.00	—	1.25	8	22	1	—			
Archie	49 11	98 6	973	39.5	—	8	77.0	5	12.0	27	22.0	1.60	—	0.95	5	25	—	—	—			
Oak Mountain	49 57	96 42	800	39.4	+ 0.6	26	72.0	4	13.5	2	19.4	2.91	+1.38	1.27	7	23	—	—	—			
Stony Mountain	50 40	97 14	803	39.1	+ 0.1	30	74.0	5	14.0	2	25.9	2.35	+1.24	1.00	5	25	—	—	—			
Winnipeg	49 53	97 7	760	41.2	+ 2.6	36	75.1	4	17.6	2	22.4	2.25	+0.71	0.86	9	21	1	—	—			



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## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1912.

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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.											
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.			
<b>MANITOBA—Continued</b>																					
<i>Dauphin Lake and River</i>																					
Berens River.....	52 18	97 23	710	41.3	—	5	73 0	4	18 0	16 24 4	1 81	—	0 98	5 25	—	—	—	—			
Dauphin.....	51 8	160 2	957	37.2	—	2	63 0	4	12 0	12 20 4	0 30	—	0 20	2 28	—	—	—	—			
Moose Horn Bay (Aitkensville).....	51 15	99 33	—	36.2	—	2	60 5	5	12 2	2 19 8	1 63	—	0 59	9 21	7	—	—	—			
<i>Lake Winnipegosis</i>																					
Le Pas.....	53 49	101 15	860	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Swan River.....	52 6	101 15	1112	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
<b>ONTARIO—</b>																					
<i>The Lake Superior Districts</i>																					
<i>Rainy River</i>																					
Kenora.....	49 48	94 32	1102	36.3	-0.1	13	60 0	4	15 0	25 17 9	1 67	—	1 06	5 25	—	—	—	—			
<i>Thunder Bay</i>																					
Kakabeka Falls.....	48 29	89 26	912	33.5	—	4	64 4	5	3 4	8 24 1	2 95	—	0 75	10 20	1	1	—	—			
Port Arthur.....	48 27	89 12	641	34 4	-0 7	31	56 0	24 25	10 0	8 18 9	3 259	0 57	0 94	13 17	—	—	—	—			
Schreiber.....	48 50	87 15	533	32 7	-1 0	12	68 5	6	- 3 2	3 24 4	3 11	—	0 89	10 20	4	1	—	—			
<i>Algoma</i>																					
Bruce Mines.....	46 18	83 55	595	36 2	-4 1	13	59 5	15	- 2 0	1 20 2	2 20	—	0 53	10 20	—	—	—	—			
Copper Cliff.....	46 30	80 59	—	35 4	—	5	59 5	29	5 0	3 18 9	1 72	—	0 50	5 25	—	—	—	—			
Porcupine.....	48 29	81 18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Providence Bay.....	45 40	82 14	—	35 3	—	1	—	—	—	—	—	—	—	—	—	—	—	—			
White River.....	48 35	83 16	1232	30 3	-3 0	23	62 0	5	-16 0	1 19 6	4 22	+2 42	1 10	5 25	—	—	—	—			
<i>Nipissing</i>																					
Cochrane.....	49 2	81 0	948	29 3	—	2	62 0	5-15	- 2 0	3 29 3	1 64	—	0 39	7 23	1	1	1	—			
Haleybury.....	47 29	79 39	687	35 5	-2 8	19	68 6	15	1 2	1 23 1	1 31	-0 24	0 35	9 21	6	2	1	—			
Montreal River.....	47 8	79 29	—	35 2	—	2	68 0	15	1 0	4 28 1	1 77	—	0 58	7 23	—	—	—	—			
<i>Upper Ottawa River</i>																					
Lake Talon (Rutherford).....	46 15	74 48	—	36 2	-2 8	16	69 0	15	- 6 0	1 24 3	1 31	-1 12	0 44	7 23	1	2	2	—			
Stoneliff (Rockcliffe).....	46 9	78 6	557	35 5	-3 9	34	69 0	15	- 7 0	1 27 5	3 16	+1 46	0 96	7 23	—	—	—	—			
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																					
Almonte.....	45 12	76 13	390	39 0	—	1	66 7	15	5 6	1 20 5	1 94	+0 06	0 75	10 20	—	—	—	—			
Kingston.....	44 13	76 29	285	38 6	-3 0	37	63 8	15	17 1	4 16 9	3 27	+1 28	0 98	15 15	—	—	—	—			
Montague.....	44 56	73 57	—	38 0	—	3	65 5	16	6 5	2 21 2	2 91	—	0 90	7 23	1	1	1	—			
North Gower.....	45 8	75 43	—	—	—	10	—	—	5 5	1	—	—	—	—	—	—	—	—			
Ottawa.....	45 26	75 42	294	38 8	-3 9	29	66 0	15-26	9 0	1 19 3	3 14	+1 26	0 97	13 17	—	—	—	—			
Renfrew.....	45 26	76 39	416	38 9	-2 7	24	69 0	15	0 0	1 24 1	1 52	+0 93	0 38	13 17	1	2	—	—			
<i>Georgian Bay Counties</i>																					
Barrie.....	44 23	79 41	839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Beaumont.....	45 8	79 20	890	36 7	-1 3	42	66 0	15	4 0	1 22 4	2 19	+0 35	0 75	8 22	—	—	—	—			
Coldwater.....	44 38	79 40	660	37 5	-3 1	25	71 0	15	6 0	1 23 6	1 34	-0 69	0 91	5 25	—	—	—	—			
Collingwood.....	44 31	80 2	—	39 4	-0 3	16	73 0	16	8 0	3 20 8	0 84	-0 16	0 40	6 24	—	—	—	—			
Gravenhurst.....	44 54	79 20	—	36 1	-2 8	41	67 0	15	4 0	4 24 1	2 43	+0 82	0 65	9 21	—	—	—	—			
Huntsville.....	45 19	79 8	—	37 2	—	6	69 0	15	0 0	1 23 6	—	—	—	—	—	—	—	—			
Midland.....	44 44	79 53	750	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—			
Orillia.....	44 37	79 24	775	38 5	-4 1	17	68 0	15	10 0	3 21 1	1 18	-0 79	0 62	5 25	—	—	—	—			
Owen Sound.....	44 34	80 55	597	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Parry Sound.....	45 19	80 0	635	38 2	-1 7	36	68 0	15	7 0	3 21 9	2 34	+0 20	0 49	10 20	1	2	—	—			
Rosville.....	45 15	78 57	1038	36 9	—	5	68 0	15-26	3 0	3 24 9	0 79	—	0 42	5 25	—	—	—	—			
Shelburne.....	44 5	80 47	—	38 3	—	3	67 0	16	12 9	4 14	2 32	—	0 54	9 21	—	—	—	—			
Uplands.....	45 48	79 25	—	34 6	-4 1	24	66 0	15	- 7 0	1 27 7	1 04	+1 72	1 09	9 21	—	—	—	—			
<i>Lake Huron Counties</i>																					
Birnham.....	43 2	81 55	600	44 4	-0 8	29	70 1	15	22 4	4 15 4	3 98	-0 94	0 92	9 21	1	3	—	—			
Clinton.....	43 32	81 37	—	40 1	—	10	70 0	16	14 0	3 17 5	1 95	—	0 39	13 17	—	—	—	—			
Godolphin.....	43 45	81 21	—	40 6	-0 1	22	71 0	16	16 5	3 17 5	1 82	—	0 49	13 17	—	—	—	—			
Lucknow.....	43 56	81 30	908	39 9	-1 1	25	69 7	15	8 0	3 19 9	2 52	+0 38	0 61	15 15	2	2	—	—			
*North Bruce.....	44 23	81 25	—	40 2	-1 4	24	65 0	15	18 0	3	—	—	—	—	—	—	—	—			
Point Clark.....	44 5	81 44	595	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Scrim.....	42 59	82 24	—	47 1	+3 7	12	70 0	15	22 0	3	—	—	0 00	+1 55	0 00	0 30	—	—			
Southampton.....	44 39	81 21	656	40 2	+0 6	35	71 0	15	15 1	1 18 8	2 10	+0 43	0 49	12 18	—	—	—	—			
<i>Lakes St. Clair &amp; Erie, Niagara Peninsula</i>																					
Chatham.....	42 23	82 12	595	45 7	-0 1	25	73 0	15	22 0	3 18 9	2 80	+0 59	0 57	9 21	—	—	—	—			
Cottam.....	42 7	82 45	306	44 8	-1 8	24	75 0	15	18 0	2 25 2	1 00	-0 48	0 72	13 17	—	—	—	—			
Grimahy.....	43 13	76 36	—	43 2	—	3	79 6	16	25 0	3 17 5	3 04	—	0 85	13 17	—	—	—	—			
Poles Island.....	41 50	82 35	685	43 0	-1 1	31	61 0	4	25 0	1	—	—	—	—	—	—	—	—			
Port Burwell.....	42 39	80 55	592	41 3	—	9	63 0	21	22 0	3 8	15 4	—	3 78	1 29	8	22	—	—			
Port Dover.....	42 27	80 13	635	43 0	-0 2	36	65 5	15	23 5	3 16 1	4 24	-0 33	1 03	10 20	—	—	—	—			
Port Stanley.....	42 40	81 12	592	42 6	-0 5	37	62 1	22	20 5	2 8	16 6	—	3 55	+0 97	1 17	10 20	—	—			
Scrim.....	43 9	79 17	347	45 0	—	1	78 0	15	21 0	8	23 3	—	—	—	—	—	—	—			
Stoney Creek.....	43 13	79 45	—	43 1	-1 1	29	74 0	15	24 0	3	16 6	—	2 84	+0 01	1 02	7 23	—	—			
Wallaceburg.....	42 35	82 24	—	45 9	—	7	76 0	15	22 0	2 16 7	2 81	—	3 52	+0 84	1 05	12 18	—	—			
Welland.....	42 59	79 17	577	43 9	+0 5	29	76 0	15	22 0	3	19 3	—	2 23	+0 27	0 54	7 23	—	—			
Windsor.....	42 20	83 4	625	46 4	+0 7	37	74 0	16	25 0	3	19 3	—	—	—	—	—	—	—			

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1912.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION				Days with 41 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.							
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Harvest fall in month.											
<b>ONTARIO—Continued—</b>																									
<b>West-Central Counties</b>																									
Alton	43 51	80 5	1250	43.2	+0.1	32	75.0	15	22.0	3	18.8	2.65	+0.82	0.58	9	21	3	1							
Brantford	43 10	80 21	750	40.5	+0.5	16	71.0	15	13.0	3	21.2	1.86	-0.24	0.53	11	19	6	2							
Ebora	43 41	80 24	1274	41.7	+0.1	24	70.0	15	17.4	3	18.5	0.38	-1.38	0.20	6	24	6	2							
Guelph	43 33	80 16	1050	44.1	+1.3	29	74.5	15	20.0	3	20.7	3.23	+0.96	0.58	8	22	2	2							
London	43 59	81 13	805	44.4	+0.5	23	75.0	15	21.0	3	19.0	2.36	+0.46	0.64	9	21	2	2							
Paris	43 12	80 25	840	44.4	-0.9	46	70.0	16	14.0	3	18.1	3.29	+0.41	1.82	5	25	1	1							
Stratford	43 23	81 0	1191	42.5	-1.1	39	70.0	15	18.0	3	19.5	1.50	-1.02	0.66	11	19	1	1							
Woodstock	43 8	80 47	980	42.5	-1.1	39	70.0	15	18.0	3	19.5	1.50	-1.02	0.66	11	19	1	1							
<b>Lake Ontario Counties</b>																									
Agricult.	43 47	79 16	590	40.2	-2.0	17	63.5	15	17.2	3	18.0	2.76	+0.49	0.65	14	16	2	1							
Aurora	43 57	79 24	886	39.7	-4.7	4	71.5	15	14.0	3	20.5	1.94	+0.05	0.75	10	20	2	1							
Bloomfield	43 59	77 21	290	39.1	-4.8	14	69.0	16	17.0	4	16.8	1.63	-	0.65	8	22	2	2							
Hamilton	43 16	79 54	303	42.9	-0.2	36	74.0	15	23.0	3	16.0	1.10	-0.70	0.73	2	28	2	2							
Scarbora Park	43 52	79 37	416	41.6	-4.6	4	69.0	7	19.0	3	18.4	1.76	-	0.78	8	22	3	3							
Toronto	43 43	79 13	548	38.6	-2.0	70.0	15	16.0	3	16.2	2.18	-	0.62	7	3	3	3								
Toronto Is. (Lakeside Home)	43 40	79 24	350	41.8	-1.3	72	71.0	15	19.2	3	16.5	2.47	-0.34	0.63	15	15	2	4							
Uxbridge	43 40	79 24	395	39.5	-1.1	8	69.0	15	20.0	3	13.3	2.79	-	0.56	9	21	2	2							
Uxbridge	44 5	79 8	886	39.5	-1.1	8	69.0	15	13.6	3	17.9	1.98	-	0.56	12	18	1	1							
<b>East-Central Counties</b>																									
Bancroft	45 1	77 50	384	+0.4	21	68.0	15	5.0	3	23.7	—	—	—	—	—	—	—	—							
Halburt	45 1	78 28	1050	37.8	-3.6	23	67.0	15	30.0	1	27.7	1.77	-	1.00	6	24	1	3							
Kinnear	44 45	78 38	920	37.8	-3.6	23	67.0	15	30.0	1	27.7	1.77	-	1.00	6	24	1	3							
Lakeland	44 25	78 15	850	37.8	-3.6	23	67.0	15	30.0	1	27.7	1.77	-	1.00	6	24	1	3							
Lambton	44 29	78 45	872	38.6	-2.4	29	68.5	15	7.9	4	20.7	2.65	+0.95	0.89	9	21	2	2							
Madoc	44 30	77 29	575	32.0	-8.8	68.0	15	11.0	4	20.0	2.69	-	0.56	13	17	2	2								
Peterboro	44 17	78 19	722	38.6	-3.2	12	70.0	15	10.0	4	19.5	2.72	+0.76	0.75	9	21	2	2							
Uxbridge	44 54	78 18	886	39.5	-1.1	8	69.0	15	13.6	3	17.9	1.98	-	0.56	12	18	1	1							
<b>QUEBEC—</b>																									
<b>Middle St. Lawrence</b>																									
Brome	45 10	72 36	678	37.7	-1.8	31	65.0	27	6.3	1	20.1	—	—	—	—	—	—	—							
Cap Rouge	46 40	71 18	286	31.4	-	1	60.0	27	5.2	1	18.5	2.58	-	1.02	8	22	1	1							
D'Ici	45 53	71 21	286	31.4	-	1	60.0	27	5.2	1	18.5	2.58	-	1.02	8	22	1	1							
Montreal	45 30	73 35	187	39.3	-2.2	34	63.5	28	13.0	24	17.2	1.24	-	0.98	6	24	1	1							
Quebec	46 48	71 13	896	34.6	-2.5	37	62.6	27	8.4	1	18.1	3.03	+0.77	0.63	13	17	2	1							
St. Anne de Bellevue	46 48	71 13	896	34.6	-2.5	37	62.6	27	8.4	1	18.1	3.03	+0.77	0.63	13	17	2	1							
Shawbush	45 27	73 59	397	37.7	-1.5	8	71.5	26	5.5	1	19.2	2.81	-	0.65	10	20	2	2							
Shawbush	45 54	71 3	397	37.7	-1.5	8	71.5	26	5.5	1	19.2	2.81	-	0.65	10	20	2	2							
Shawbush Falls	46 24	72 43	466	37.7	-1.5	8	71.5	26	5.5	1	19.2	2.81	-	0.65	10	20	2	2							
Sherbrooke	45 32	72 5	620	37.8	-1.0	68.3	28	10.3	1	19.6	3.70	-	1.45	12	18	1	1								
<b>Lower St. Lawrence &amp; Gulf</b>																									
*Anticosti, E. Pt.	49 6	61 42	39	29.0	-	27	35.0	7	18.0	1-4	—	2.59	-	1.08	5	25	—	8							
*Anticosti, S.W. Pt.	49 52	64 32	39	28.9	-1.3	30	38.0	30	13.0	1	—	3.13	-1.63	0.90	11	19	—	2							
*Bequet	48 25	68 53	37	33.6	-	29	57.0	7-27	15.0	9	—	3.36	-1.44	0.40	8	22	—	7							
*Cape Chatte	49 6	66 45	30	30.6	-3.8	29	54.0	7	12.0	—	—	0.31	-	0.20	3	27	—	3							
*Cape Magdalen	49 16	65 20	93	31.4	-2.2	30	70.0	7	15.0	1	—	1.77	-1.03	0.45	9	21	—	3							
Father Point	48 31	67 19	20	32.2	-1.5	34	58.0	27	13.0	1	14.5	3.48	-1.52	1.27	11	19	1	2							
<b>Lake St. John</b>																									
Chouinard	48 25	71 5	150	30.5	-4.5	2	65.0	26	-3.0	1	21.1	—	0.68	-	0.40	4	26	1							
Chouinard (2)	47 39	72 15	1333	28.4	-	3	57.0	8	-15.5	1	24.2	2.68	-	0.90	6	24	—	1							
Lake Edward	47 27	72 48	520	39.7	-	1	63.0	27	-6.0	1	25.2	3.57	-	1.60	7	23	—	2							
LaTouche	48 54	72 15	360	26.6	-	1	58.0	7	-15.0	9	24.6	1.02	-	0.39	4	26	5	2							
Mistassini	48 51	72 13	352	29.8	-	6	59.0	28	-2.0	3-4	—	—	—	—	—	—	—	—							
Roberval	48 51	72 13	352	29.8	-	6	59.0	28	-2.0	3-4	—	—	—	—	—	—	—	—							
<b>The Northwestern Districts</b>																									
Abitibi	48 33	79 22	—	28.0	-4.4	16	58.0	5-25	-10.0	14	25.6	1.00	-	0.22	6	24	—	1							
Manitou Crossing	—	—	—	25.7	-	1	63.0	27	-27.0	8	21.8	3.22	-	0.80	7	23	—	1							
Weymouth Landing	47 54	73 50	—	21.0	-	1	55.0	27	-21.0	1	24.7	3.07	-	0.97	7	23	—	1							
White Horse Lake	48 12	75 43	—	25.6	-	1	68.0	16	-26.5	9	29.5	1.76	-	0.56	3	21	6	2							
<b>The North Shore</b>																									
Clark's City	50 10	66 25	—	25.0	-	—	46.0	25	-3.0	2	20.4	1.74	-	0.39	10	30	—	—							
<b>NEW BRUNSWICK—</b>																									
Chatham	47 3	65 29	21	33.4	-2.4	37	64.0	16	10.5	5	20.1	1.35	+0.47	0.73	12	18	—	—							
Dalhousie	48 4	66 22	39	30.4	-2.6	32	48.0	24	5.0	2	15.7	3.22	-0.44	0.70	4	26	—	—							
Federicton	45 57	66 36	164	36.5	-1.8	39	65.2	16	7.5	5	22.3	3.12	+0.78	1.17	10	20	—	1							
Grand Manan	44 47	66 46	49	40.0	-0.3	27	58.5	20	17.0	9	15.6	3.06	-0.32	0.75	9	21	—	7							
Miramichi	46 9	61 45	50	37.4	-1.2	14	70.0	13	11.0	4	19.7	1.45	-	0.50	6	24	—	—							
*Point Lepreau	45 4	66 28	39	36.5	-0.7	34	56.0	17	18.0	9	—	2.08	-0.56	0.77	6	24	—	8							
St. John	45 17	64 1	70	37.9	-1.6	39	57.5	17	16.0	9	11.2	3.55	+0.38	0.87	13	17	—	1							
St. Stephen	45 11	67 16	35	39.6	-	15	69.0	16	11.0	4	23.1	3.13	-	0.53	9	21	—	4							
Sussex	45 28	65 38	69	39.6	-	15	69.0	16	11.0	4	23.1	3.13	-	0.53	9	21	—	4							

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1912.

\*Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION					
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount.	Difference from average	Heaviest fall in month	Days with 01 or more
															No. of fair days
															No. of Auroras
															No. of thunderstorms
															No. of fogs
NOVA SCOTIA—															
Antigonish.....	45 38	61 59	50	36.0	—	2	60.0	17-24	15.0	14	20.3	—	—	—	1
Halifax.....	44 39	63 36	88	39.1	-0.3	37	67.2	17	20.3	5	16.1	3.87	-0.65	1.24	15
Kentville.....	45 3	—	40	37.1	—	1	70.0	16	16.0	19	18.1	2.48	—	0.73	8
New Germany.....	—	—	—	38.8	—	1	68.0	16	11.0	5	20.4	0.72	—	0.72	1
Parrsboro'.....	45 23	64 19	40	—	—	—	—	—	—	—	—	—	—	—	22
Port Hastings.....	45 39	61 22	45	36.0	-1.4	20	63.0	16	18.0	3-5	14.7	1.13	-2.06	0.58	3
Sable Island, E. Pt.....	43 58	59 46	25	36.6	—	—	49.0	26	22.0	14	—	1.40	—	0.45	5
Sable Island, Main Sta.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25
Sydney.....	46 10	60 10	35	35.8	-1.0	38	60.0	17	14.0	5	16.5	2.16	-1.95	0.68	11
Truro.....	45 22	63 18	77	37.3	0.0	36	64.7	16	9.0	5	21.2	3.02	+0.18	0.38	12
Whitehead.....	45 15	61 8	20	34.1	—	—	45.0	26	23.0	4	—	0.51	—	0.11	8
Windsor.....	44 59	64 6	90	39.3	—	10	70.5	17	15.0	5	17.9	2.21	—	0.77	10
Wolfville.....	45 7	64 20	—	39.9	-0.1	13	72.8	16	18.0	5	19.5	1.48	-1.26	0.79	7
Yarmouth.....	43 50	66 2	65	39.5	-0.2	31	55.1	17-25	19.5	5	13.8	3.48	-0.34	0.63	14
P. E. ISLAND—															
Charlottetown.....	46 14	63 10	38	35.6	-0.5	36	56.0	25	11.5	5	14.7	3.44	+0.79	1.03	15
Charlottetown (Exp. Farm).....	46 14	63 7	75	35.7	—	2	62.0	16	12.0	5	16.4	3.16	—	0.88	14
Hamilton.....	46 25	63 48	—	—	—	—	—	—	—	—	—	—	—	—	16
NEWFOUNDLAND—															
*Amour Point.....	51 28	56 51	—	24.4	—	—	41.0	8	10.0	2	—	1.60	—	0.40	6
Burin.....	47 0	55 10	27	31.1	—	4	55.0	2	12.0	2	15.9	2.54	—	0.54	10
*Cape Norman.....	51 38	55 52	—	26.3	—	—	40.0	8	15.0	1	—	1.20	—	0.25	8
Fogo.....	49 43	54 17	30	28.3	—	—	48.0	9	10.0	—	8.8	2.90	—	0.60	13
*Point Riche.....	50 42	57 25	35	25.5	—	30	47.0	8	6.0	—	—	0.15	-0.24	0.06	5
Port aux Basques.....	47 35	59 10	27	29.1	—	4	39.5	26	11.5	2-5	9.3	7.26	—	2.32	20
St. John's.....	47 34	52 42	125	31.9	-3.5	39	49.0	25	13.0	2	14.0	3.15	-1.20	1.00	12
BERMUDA—															
Prospect.....	32 17	64 46	151	64.6	—	22	76.4	22	49.4	6	10.6	2.28	-1.62	1.32	13

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING APRIL, 1912.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS.
	Amount in inches.	No of Days. 01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake	1.20	11	19	0.32	11					
Amis (Canoe Point)	1.22	15	15	0.37	11					
Armstrong	1.20	7	23	0.41	11					
Akanina	1.43	8	22	0.52	29					
Beaver Lake	4.33	14	16	0.76	28					
Cosquitlan	1.11	9	21	0.40	28					
Denman's Island	2.09	19	19	0.50	11	2.0	1	2.0	4	
Ferguson	2.48	17	13	0.51	30					
Goldstream Lake	1.36	12	18	0.61	30	3.5	1	3.5	3	
Hydraulic	1.35	4	26	0.60	28					
Hornby Island	1.35	12	18	0.34	4					
Jordan River	2.73	19	10	0.68	28	1.7	1	1.7	4	
Jordan River (Bear Creek)										
Little Qualicum (French Creek, V.I.)	1.29	8	22	0.25	4	0.2	1	0.2	4	
Monte Creek	1.44	11	18	0.37	24					
Nana Harbour	1.20	6	24	0.65	5					
Skidegate										
Shawnigan Lake	2.09	16	14	0.32	29					
Wychfile	0.60	5	25	0.28	11					
ALBERTA—										
Bardo	0.52	4	24	0.20	30	*	2	*	12-22	
Bismark	0.27	2	27	0.25	30	3.0	1	3.0	26	
Bruderheim	1.32	9	21	0.56	30					
Bittern Lake	0.48	5	24	0.16	22-25	0.3	1	0.3	13	
Brooks	1.25	9	20	0.43	29	1.0	1	1.0	5	
Campsie	0.56	7	20	0.23	30	*	3	*	11-27	
Cadwell	0.82	4	50	0.50	17	2.5	3	2.5	12	
Dorosse	0.54	4	23	0.30	13	5.0	3	2.0	23-26	
Dunstable	0.59	7	16	0.22	25	2.4	7	0.6	11	
Grassy Lake	0.30			0.30	28	*		*		
Jumping Pound	2.43	9	11	1.24	30	*	10	*	4-30	
Lacombe										
Loch Sloy										
Lyndon	0.87	3	22	0.37	25	2.2	3	2.0	5	
Linham	0.26	1	28	0.26	28	7.0	1	7.0	11	
La Pearl	0.25	5	25	0.08	24					
Macleod	0.07	3	25	0.04	12	2.0	2	1.5	5	
Mayeroff	1.21	6	23	0.58	11	*	1	*	25	
Nateby	1.39	4	26	0.7	30					
Okotoks	1.64	1	26	1.64	31	*	3	*	1-12	
Pekisko	1.79	6	21	0.72	11	3.9	3	3.5	11	
Ponoka										
Sion	1.16	16	12	0.27	30	4.0	2	2.0	5	
Seven Persons	0.79	3	27	0.28	16					
Tilley										
SASKATCHEWAN—										
Aberfeldy	0.33	3	27	0.16	30	*	1	*	6	
Gull Lake	0.37	1	27	0.03	21	1.7	2	0.9	29	
Gull Lake (Fks. Swift Cur)	0.16	2	25	0.10	26	1.2	3	0.6	5	
Last Mountain										
Maple Creek	0.13	2	26	0.10	23	1.0	2	0.8	13	
Meadow Lake										
Nashlyn (Kelvinhurst)	0.26	3	27	0.10	27					
Willow Creek	0.85	5	25	0.45	12	3.0	1	3.0	13	
MANITOBA—										
Curryville	3.77	7	23	1.34	14					
Dolomine	2.50	4	23	1.50	29	7.0	3	4.0	13	
Gretna										
Norquay (Swan Lake)	1.44	4	23	1.12	14	16.5	3	10.0	6	
Rapid City	1.60	2	26	1.00	13	5.5	2	5.0	14	
Rose Bank										
ONTARIO—										
Deer Park	1.86	7	21	0.65	15	4.3	2	2.8	9	
Dutton	1.80	6	22	0.75	14	*	2	*	7-19	
Ensdale	3.05	10	20	1.13	15					
Fort Frances	0.91	2	23	0.80	25	0.9	5	0.3	23	
Georgetown	2.72	12	15	0.53	7	3.0	3	1.5	9	
Grantham	3.53	12	16	1.06	15	1.0	2	0.8	9	
Grand Valley	1.97	8	18	0.58	7	5.5	4	2.0	2-9	
MacCoe	3.24	4	23	1.25	7	4.0	1	4.0	2	
Orangeville	3.64	7	21	1.07	7	5.0	2	3.4	9	
Sydenham	2.90	4	25	1.20	22	2.0	1	2.0	9	
Strathroy	3.40	9	20	0.87	20	0.5	1	0.5	3	
Watford	4.02	10	20	1.10	14					
Westport	1.92	3	25	1.02	22	3.0	2	2.0	1	
Westminster	4.15	6	24	1.17	2					
Wooler	2.01	6	23	0.67	15	2.0	1	2.0	9	
Wesley	1.64	10	16	0.48	7	6.5	4	2.5	9	
Wottonville	2.06	5	22	0.79	7	1.7	3	1.0	22	
Warton	2.39	3	25	1.11	14	2.0	2	1.0	9-18	
QUEBEC—										
LaCerne	3.23	6	23	0.91	6	*	1	*	24	
Perkins Mills	3.70	7	21	1.30	22	0.3	2	0.2	1	
Quince Dam	1.10	4	26	0.53	25	*	1	*		
Timiskaming	1.05	8	18	0.37	6	7.3	4	3.8	23	
NEW BRUNSWICK—										
Point Escommac	0.21	4	23	0.09	22	9.4	3	4.2	3	
NOVA SCOTIA—										
Big Mashamush Lake (Ma- honey)										
Kentville	2.15	5	24	0.73	19	3.3	2	3.0	3	
Kedgemaakooze Lake (New Grafton)										
Milton	4.13	7	23	1.32	18					
Mashamush River (Mahoney)										
New Germany										
South Alton	2.01	7	23	0.84	19	15.0	4	8.0	4	
White Rock	1.82	4	27	0.85	19					

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE MONTH OF APRIL 1912.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM								VELOCITY OF WIND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				Mean reduced.	Highest.	Lowest.	Range.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Astoria	49	35	133	38	2240	29.89	30.22	29.45	0.78	6	2	2	0	5	5	25	4	3	6	10	60	7.1	30.0	2 S																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Barkerville	53	2	121	35	4180	29.81	30.1	29.30	0.89	7	6	0	0	0	0	3	0	5	60	0	20.0	2 SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Kamloops	50	42	120	29	1245	29.82	30.0	29.30	0.79	8	15	2	5	9	2	3	29	8	10	60	5.2	15.0	4 SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Nanaimo	49	10	123	37	125	29.85	30.12	29.17	0.95	82	6	7	0	0	2	15	0	2	2	17	22	60	4.4	18.0	4 SE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Prince Rupert	54	18	130	18	170	29.85	30.1	29.17	1.02	72	7	12	0	0	6	8	6	4	8	0	28	60	5.8	12.0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Triangle Island	50	32	129	3	680	29.85	30.1	29.17	1.02	72	7	12	0	0	6	8	6	4	8	0	28	60	5.8	12.0	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Tranquille	50	41	120	29	25	26	28	0.83	77	7	8	0	0	11	3	0	1	18	6	21	60	3.5	12.0	4 W																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Vancouver	49	17	123	5	136	29.97	30.22	29.27	0.95	77	7	4	2	0	12	19	1	6	7	2	11	60	3.5	12.0	4 W																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Victoria	48	24	123	19	85	29.96	30.25	29.24	1.00	72	8	7	4	1	6	2	6	24	9	4	4	60	8.8	28.0	4 SW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.  
 DIRECTION OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
 THE SECOND CLASS, DURING THE MONTH OF APRIL, 1912

STATION	DIRECTION OF WIND FROM								Total number of Observations.	
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		C.
ALBERTA—										
Athabasca Landing.....	4	3	6	3	4	1	6	3	0	30
Alix.....	1	2	7	2	6	2	2	2	6	30
Halkirk (Hinsburg).....										
Hillsdown.....		5	0	15	4	7		22		60
Loveland.....	0	6	0	9	0	7	2	6	0	30
Paken (Victoria).....	11	18	3	1	1	13	5	4	4	60
Ranfurly (Waitefield).....	10	8	25	7	0	2	4	25	9	90
SASKATCHEWAN—										
Chaplin.....	4	7	3	4	0	5	3	4	0	30
Crescent Lake.....	1	6	3	3	8	2	3	4	0	30
Estevan.....	1	5	6	2	4	3	4	5	0	30
Grenfell (Brownhill).....	0	13	3	9	2	15	3	15	0	60
Indian Head.....	8	15	13	7	9	12	7	11	8	90
Larchmount (Glenbryan).....	0	13	6	2	0	11	9	19	0	60
Moosomin.....	2	0	2	3	11	5	2	5	0	30
Muenster (St. Peter's Monastery).....	0	8	3	3	0	22	4	20	0	60
Onion Lake.....	7	4	9	2	1	0	2	5	0	30
Pense (Gatesgarth).....	0	5	4	8	0	4	1	8	0	30
Waseca.....	0	5	4	5	2	4	5	5	0	30
MANITOBA—										
Berens River.....	2		5	9	16	3	7	1	1	62
Brandon.....			5	5	2	24	11	21	11	93
Hillview.....	5		11	2	0	27	1	44	0	93
Moose Horn Bay (Aitkensville).....	7		2	7	5	11	2	7	6	62
Morden.....	3		0	4	1	15	10	10	8	62
Oak Bank.....	5		0	3	2	5	2	13	0	31
Stony Mountain.....	11		3	4	10	17	3	6	0	60
ONTARIO—										
Agincourt.....	2	16	15	10	3	15	5	24	0	90
Alton.....										
Beatrice.....	5	2	0	16	11	2	4	23	27	90
Birnam.....	7	6	12	4	14	3	5	9	0	60
Clinton.....	3	6	10	6	9	5	10	11	0	60
Cottam.....	13	1	9	2	23	6	1	3	2	60
Gravenhurst.....	8	0	12	20	4	6	16	11	13	90
Lindsay.....	4	7	14	8	9	13	6	25	4	90
North Bruce.....	8	4	20	3	17	7	23	7	0	90
Orillia.....										
Owen Sound.....										
Point Clark.....										
Port Dover.....	4	5	4	3	1	5	0	8	0	30
Scarboro Junction.....	0	2	8	0	2	6	4	5	3	30
Stoney Creek.....	6	18	26	0	0	14	18	8	0	90
Uplands.....	14	0	7	0	9	1	18	1	10	60
QUEBEC										
Abitibi.....	26	2	12	1	14	5	20	10	0	90
Anticosti, W. Pt.....	12	4	8	3	24	3	7	29	0	90
Anticosti, Heath Point.....	4	2	12	7	19	16	4	24	2	90
Bicquet.....	11	21	0	0	11	6	16	25	0	90
Brome.....	12	2	2	3	16	23	21	5	0	84
Cape Chatte.....	3	4	18	0	1	2	32	7	23	90
Cape Magdalen.....	1	4	6	0	18	3	1	47	10	90
Cape Rouge.....	22	4	0	0	0	1	0	3	0	30
Chicoutimi.....	0	10	0	47	0	32	0	1	0	90
Clarke City.....	4	1	8	0	1	3	1	11	1	30
Roberval.....	7	18	0	0	1	25	8	13	0	72
NEW BRUNSWICK—										
Dalhousie.....	0	0	7	6	0	0	17	0	0	30
Moncton.....	0	4	0	4	1	0	0	19	2	20
Pt. Lepreaux.....	9	1	19	1	8	15	9	16	0	78
Sussex.....										
NOVA SCOTIA—										
Kentville.....	1	2	3	0	4	3	12	5	0	30
Parrsboro'.....										
Port Hastings.....	0	10	0	7	0	7	0	6	0	30
Sable Island E. Pt.....	3	10	0	16	3	25	0	33	0	90
Truro.....	5	7	5	6	17	9	28	10	1	88
Whitehead.....	12	2	10	10	10	25	8	13	0	90



MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
APRIL, 1912.

STATION.	HOURS ENDED															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria.....		.03	17	.28		35	39	48	41	48	46	31	23	19	92	
Salmon Arm.....		.10	24	.40	49	57	55	60	45	39	39	37	28			
Nanaimo.....			.02	13	13	18	24	37	27	31	28	27	12	91		
Vancouver.....		.01	.14	22	.28	39	32	32	36	35	35	42	42	25	07	
Agassiz.....		.03	.10	15	.21	.25	25	22	.16	23	20	15	.05			
Tranquille.....		.01	21	28	49	54	.55	53	50	53	41	42	.33	28	10	
Summerland.....		.06	.35	50	52	47	40	40	.48	44	37	.45	40	30		
Kamloops.....		.01	.07	26	37	53	55	58	60	51	52	48	31	14	01	
Edmonton.....		.08	.30	33	49	54	63	63	57	62	55	46	38	28	06	
Lethbridge.....	01	22	48	66	66	62	63	61	.86	56	53	17	41	36	14	
Lacombe.....		.05	22	.46	62	69	53	65	69	60	60	57	46	35	11	01
Medicine Hat.....		.07	38	63	.70	71	69	71	73	73	62	42	46	27	07	
Fort Dunvegan.....		12	23	.51	.56	50	47	.44	.44	43	47	51	41	26	08	
Fort Vermilion.....		.01	15	.31	43	54	.60	62	67	65	61	56	37	10		
Battleford.....		.02	.35	63	.75	75	80	75	.72	68	65	60	48	16		
Indian Head.....			.09	45	63	67	64	70	66	.68	63	58	44	27	63	
Moosejaw.....		14	.44	.70	69	72	71	69	76	69	71	70	50	37	07	
Scott.....	08	27	.43	.52	68	63	74	87	89	88	76	55	36	16		
Rosethorn.....		.15	.28	71	72	73	75	76	76	78	78	74	66	40	16	
Brandon.....		.01	.15	.55	75	81	80	81	77	74	65	61	52	18	08	
Winnipeg.....		.02	.28	47	51	49	54	60	.64	64	68	70	62	45	16	
Haileybury.....		.15	.48	59	59	59	.64	64	65	66	65	65	63	54	24	
Woodstock.....		.01	.24	45	52	52	49	51	51	51	49	54	47	.12		
Lindsay.....		.02	.17	39	52	54	54	53	52	54	49	43	39	28	13	
Barrie.....		.04	21	41	49	54	51	47	49	53	43	43	46	29	T	
Toronto.....		.17	41	.50	56	.59	56	56	56	53	51	.55	53	41	05	
Kingston.....		.05	21	.45	.53	56	60	63	.57	57	56	.51	43	18	05	
Ottawa.....		.16	.56	.59	.62	72	73	75	.70	67	63	64	57	.37	10	
Montreal.....	T	.31	.57	.64	72	69	66	72	70	60	55	56	50	.34	T	
Cap Rouge.....		.11	.39	54	.54	63	.65	69	.69	65	62	57	55	.45	07	
Quebec.....		.01	.26	.55	.58	60	67	73	79	66	61	58	54	26	03	
Sherbrooke.....	.01	25	.51	.58	.63	61	.66	63	62	58	57	53	55	45	17	
Fredericton.....		.09	.41	.52	.56	59	.58	61	63	62	59	60	61	47	16	
Charlottetown.....	.02	11	.22	.35	.38	43	.40	41	44	46	46	49	50	33	09	

	Victoria.	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosethorn.	Brandon.	Winnipeg.	Haileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sherbrooke.	Fredericton.	Charlottetown.
Registered duration in hours.....	115	145	66	114	60	156	154	148	178	210	195	215	163	169	221	195	237	236	251	226	204	231	147	148	158	180	177	235	227	215	207	221	211	152
Percentage of possible duration %.....	28	35	16	27	15	38	37	36	43	51	47	52	40	39	53	47	57	57	61	55	51	57	37	37	39	45	44	58	61	53	51	55	52	58
Difference from average %.....	-16	-	-21	-	-17	-	-	-	-	-	-	-	-	-	-3	-	-	-	-	+1	+1	-	-7	-13	6	2	-3	+13	111	-	+12	-	+18	-
Maximum percentage in one day %.....	77	84	69	87	65	94	84	82	78	95	80	87	83	76	81	84	93	95	96	81	90	85	8	80	88	91	93	92	100	91	86	98	91	91
Rate of maximum.....	8	5	24	8	8	21	5	21	2	20	8	15	16	17	9	20	20	15	26	23	18	12	30	30	3	30	30	30	20	20	20	28	26	27
Number of days completely clouded.....	5	2	11	6	12	1	2	6	4	3	4	2	4	5	2	3	4	0	0	2	7	2	5	5	6	2	6	4	3	2	1	2	5	7

*Auroras recorded—*

1. Haileybury III.
2. Haileybury III.
- 3.
4. White Shore Lake IV, Schreiber IV, Aitkensville IV, Chagoness IV.
5. White Shore Lake IV, Mistassini III, Hillsdown IV, Sion III, Muenster III.
6. White Shore Lake II, Aitkensville IV.
7. Schreiber IV, Sion.
8. Birnam IV.
9. Cartwright IV, Aweme III, Renfrew, Schreiber IV, Aitkensville IV, Quebec IV, Haileybury II, Oliver, Glenbryan II.
10. White Shore Lake II, Minnedosa III.
- 11.
12. Chicoutimi, Schreiber IV, Rutherglen, Quebec IV, Father Point III.
13. White Shore Lake II, Mistassini III, Deloraine, Glenbryan I.
14. Mistassini IV, Aitkensville IV, Halkirk, Hillsdown III, Waitefield II, Sion II, Oliver, Muenster III, Melfort IV, Glenbryan II, Pense III, Qu'Appelle IV, Chaplin IV, Brownhill III, Imperial I, Chilcotin II, Chilliwaek IV.
15. Cartwright III, Brandon, Aweme I, Kakabeka Falls II, Aitkensville IV, Haileybury IV, Waseca, Glenbryan II, Pense II, Chilcotin III, Chagoness III.
16. Cartwright IV, Brandon, Aweme III, Lucknow IV, Montague, Aitkensville III, Sion II, Waseca, Oliver, Melfort IV, Glenbryan II, Pense III.
17. Aweme IV, Aitkensville IV, Parry Sound III, Haileybury III, Sion, Waseca.
18. Haileybury III.
19. Emsdale III, Clinton IV, Lucknow IV, White Shore Lake II, Halkirk, Oyen IV, Haileybury II.
20. Mistassini IV, Waseca.
21. Haileybury III.
22. Halkirk, Oliver.
23. Sion.
24. Mistassini III.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.

*Thunder recorded—*

1. Port Dover.
- 2.
- 3.
4. Rapid City.
5. Oyen, Glenbryan.
6. Kakabeka Falls, Haliburton, Montreal River, Schreiber, Port Arthur.
7. Providence Bay.
- 8.
9. Treherne.
10. Alix.
- 11.
12. Georgetown, Paris, Clinton, Port Stanley, London.
13. Birnam.
14. Georgetown, Wesley, Emsdale, Wattenwyl, Agincourt, Beatrice, Pt. Clark, Stoney Creek, Providence Bay, Aurora, Uxbridge, Paris, Brantford, Bancroft, Clinton, Lucknow, Almonte, Haliburton, Peterboro, Birnam, Ronville, Madoc, Lorne Park, Scarboro Jet., Jumping Pound, Shelburne, Woodstock, Southampton, Parry Sound, Gravenhurst, London.
15. Deer Park, Orangeville, Emsdale, Wooler, Wattenwyl, Lucerne, Perkins Mills, Agincourt, Pt. Clark, Bloomfield, Brantford, Madoc, Lucknow, Haliburton, Peterboro, Renfrew, Montague, Chicoutimi, Scarboro Jet., Moncton, North Gower, Rutherglen, Ottawa, Kingston, Parry Sound, Gravenhurst, Lindsay.
16. Brome, White Shore Lake, D'Israeli, Lake Edward, Pt. Lepreaux, Montreal, Quebec, Charlottetown, Ottawa, Wolfville.
17. Port Hastings, Kentville, Sydney, St. John, Grand Forks.
18. Pt. Clark, Grand Forks.
19. Salmon Arm.
- 20.
21. Wattenwyl, Ronville, Glenbryan.
22. Emsdale, Wooler, Bloomfield, Providence Bay, Brantford, Paris, Birnam, Renfrew, Madoc, White Shore Lake, Scarboro Jet., Westport, Rutherglen, Kingston, Lindsay, Glenbryan, East End, Nakusp, Salmon Arm.
23. Nakusp.
24. Clinton, Kenora, New Germany, Pakan, Hillsdown, Waitefield, Kingston, Muenster, Pense.
25. Oakbank, Treherne, Almasippi, Windsor, N.S., Harmattan, Indian Head, Quinze Dam.
26. Georgetown, Wattenwyl, Bruce Mines, Montreal River, Winnipeg.
27. Morden, Harmattan.
28. Halifax.
29. Rossland.
30. Ninga, Deloraine, Waitefield, Minnedosa, Chaplin.

## FORECASTS FOR APRIL 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1207. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	81	57	14	10	79.0
Saskatchewan.....	82	60	9	13	78.7
Manitoba.....	85	52	20	13	72.0
Lake Superior.....	97	77	14	6	86.6
Lower Lake Region.....	113	83	22	8	83.2
Georgian Bay.....	112	81	20	11	81.2
Ottawa Valley.....	95	69	18	8	82.1
Upper St. Lawrence.....	95	70	17	8	82.6
Lower St. Lawrence.....	107	83	18	6	86.0
Gulf.....	109	81	19	9	83.0
Maritime Provinces West.....	116	89	20	7	85.3
Maritime Provinces East.....	115	88	24	3	87.0
Total.....	1207	890	215	102	82.6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,

June 7, 1912.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

MAY, 1912

No. 5

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

A new section, containing the results of the observations obtained from balloon ascensions, is added to this number of the Review under the heading "Free Air Data." The data for 1911 were published in a supplement to the Review for that year, and it is now intended to publish the results of the balloon ascensions in the Review for the month to which they belong if the balloons have been found before publication.

## TEMPERATURE.

### BRITISH COLUMBIA.

In the Kootenays the average temperature was exceeded by 3°. This was due to a warm period beginning on the 6th and continuing till the 20th, daily maxima ranging between 75° and 88°. Along the upper Fraser and the North Coast there was a similar excess above average. Over the remainder of the province the departure was smaller and was even negative on the northern portion of Vancouver Island.

### WESTERN PROVINCES.

Except in the extreme south-west, the mean temperature in Alberta was exceeded by more than 2°. From the 13th to the 15th 80° was exceeded daily, and after the 12th frosts were infrequent and very light.

Over the greater part of Saskatchewan the mean temperature was less than average, by 1° in the north and 2° in the south; but in the extreme north-western portions the average was exceeded by from 1° to 2°. The highest temperatures occurred on the 15th and 16th, in many places exceeding 80°. Frost occurred as late as the 19th and 20th and was severe in some localities.

In Western Manitoba temperatures were nearly average, but in the eastern portions of the province there was an excess of from 2° to 3°. The warmest period was that between the 25th and 30th, 80° being exceeded on the 25th and 26th. No severe frost was recorded later than the 13th.

## ONTARIO.

In the Rainy River and Thunder Bay Districts the normal temperature was exceeded by from 1° to 3°, and in the Peninsula by 1° or 2°. Over the remainder of the province the mean temperature was average or slightly lower. Temperatures of 80° or higher were recorded about the 23rd and 24th, and light frosts as late as the 14th.

## QUEBEC.

In the Abitibi region and along the Upper and Middle St. Lawrence the mean temperature was about 1° higher than average. But in the Lake St. John district and along the North Shore it was average or slightly lower. At points on the Upper and Middle St. Lawrence 80° was exceeded on the 28th and 29th.

## THE MARITIME PROVINCES.

There was a general excess over average temperature of about 2°. The highest temperatures occurred between the 27th and 30th. There were no heavy frosts after the first week, but light frost was recorded in Nova Scotia on the 23rd.

## PRECIPITATION.

## BRITISH COLUMBIA.

The greater part of the precipitation was recorded during the last two weeks, and was considerably less than average in most districts.

## THE WESTERN PROVINCES.

Rain occurred in Alberta on the 1st, 2nd, 3rd, 9th, 18th, 27th, to 30th, but was in excess of average along the North Saskatchewan only, while in other districts it was considerably less.

In Saskatchewan there was an excess of from 20 to 40 per cent. of the normal, while in Manitoba it was even more pronounced, many places recording a fall of more than an inch on the 6th, 27th, or 28th.

## ONTARIO.

Much more than the average rainfall was recorded, the excess in some instances exceeding 50 per cent. of the normal. Thunderstorms were frequent in all districts.

## QUEBEC.

The excess was generally about 40 per cent., more than an inch having been recorded on the 14th and 24th at several places.

## THE MARITIME PROVINCES.

Rain fell on an average of eight days, with heavy falls on the 17th, 30th and 31st, in some cases exceeding two inches. The total amount ranged from 20 to 40 per cent. in excess of average.

## ATMOSPHERIC PRESSURE.

Using the telegraph reporting stations as indicative of the conditions throughout Canada, it appears that the mean value of the atmospheric pressure was subnormal from Eastern Saskatchewan to Northern New Brunswick, and exceeded the average elsewhere. Negative differences were generally more than 0.05 of an inch, while the positive departures were about half that quantity.



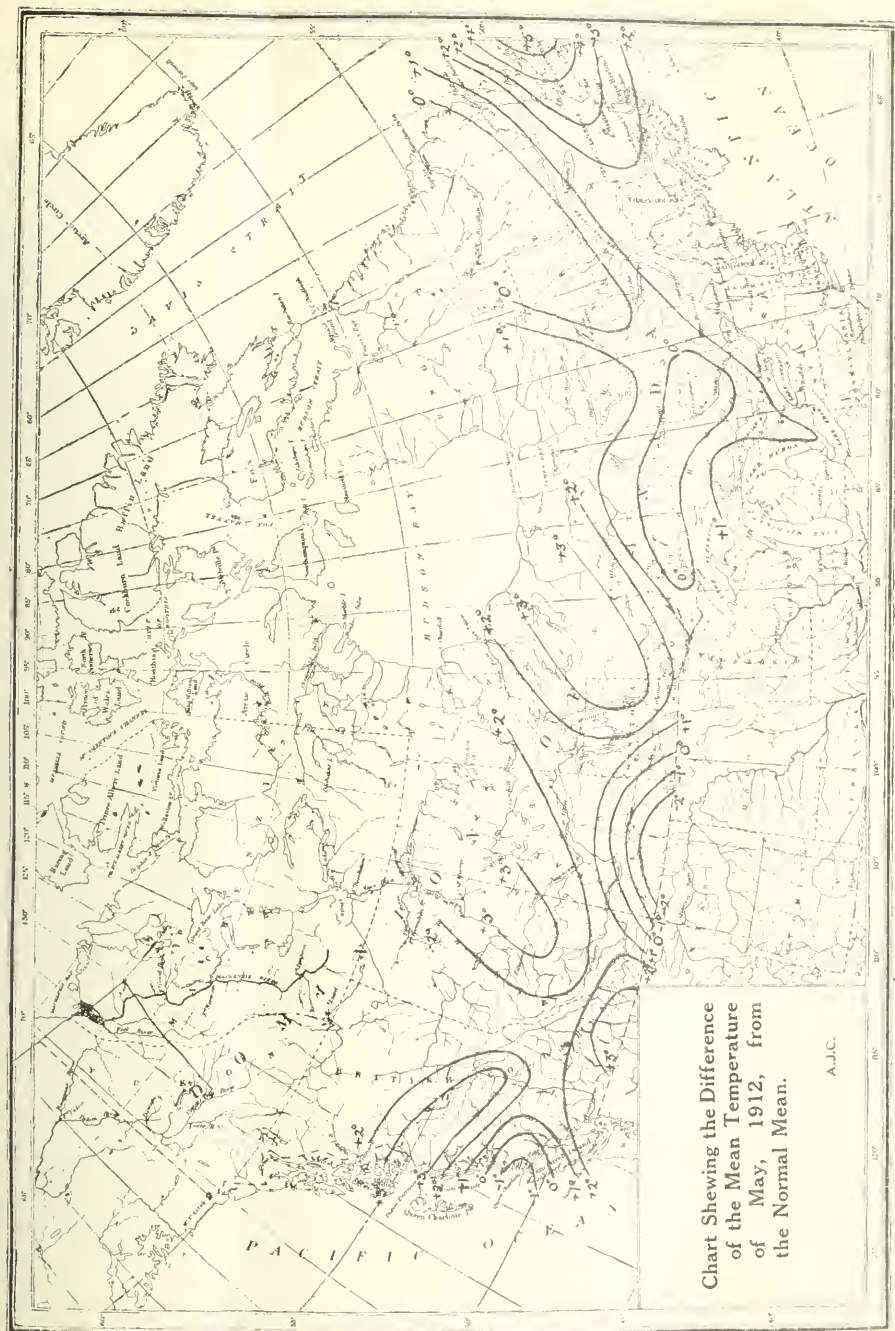


Chart Shewing the Difference  
of the Mean Temperature  
of May, 1912, from  
the Normal Mean.

A.J.C.

## HIGH AREAS.

Seven areas of high pressure were charted. Four first appeared to the far northward, in the neighborhood of the Hudson's Bay district, and three on the coasts of the North Pacific States. The

areas all eventually reached the Atlantic Ocean, three passing off the Middle Atlantic States coast, three off the Maritime Provinces coasts, and one off Newfoundland. The systems as a rule were quite pronounced for the time of year, and those from the northward were attended by much cool weather.

## LOW AREAS.

Eleven areas of low pressure were charted. Two first appeared on the British Columbian coast, three to the northward of the Western Provinces, one on the coast of the North Pacific States, one in the Middle Pacific States, two in the South Pacific States, one in Texas and one in the Middle Atlantic States. The general course of the areas was over the Great Lakes to the St. Lawrence Valley and the Maritime Provinces. No very strong winds as a rule attended the areas, but they were chiefly noticeable for the heavy rains which they caused.

## FREE AIR DATA.

The results obtained from balloon ascensions for the year 1912 up to and including May are given in this section.

Balloons despatched from Woodstock on the 2nd, 3rd and 4th January were not found.

## FREE AIR DATA.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat 43° 8' N., Long. 80° 47' W ) on 31st Jan., 1912.

Instrument—Dines Meteorograph.

Beginning of Ascent—10 hrs., 17 min. p.m. G M T.

Barometer—729 mm.

Temperature—-9 C.

Direction of Flight at Beginning—Southeast in moderate to fresh wind.

Fell—183 km. distant, S. 20° E.

Maximum Height—9.3 km.

Minimum Temperature—-55°C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	729	-9.0	
.5	708	-12.0	
.9	672	-15.0	
1.0	662	-15.0	
1.5	620	-12.0	-15.5
1.56	615	-11.5	-15.5
1.75	600	-12.0	-15.5
2.00	581	-13.0	-14.5
2.3	558	-16.0	
2.5	543	-17.0	
3.0	507	-18.5	
3.5	472	-21.0	
4.0	441	-24.0	
4.5	412	-27.5	
5.0	384	-30.5	
5.25	370	-32.0	
5.5	358	-34.0	-34.5
6.0	332	-38.0	-40.0
6.5	308	-44.0	-45.5
7.0	283	-48.0	-49.0
7.5	263	-51.5	-52.0
7.7	254	-53.5	
8.0	243	-54.5	
8.5	224	-53.5	
9.0	207	-54.5	
9.3	198	-55.0	

Jan. 31st, 1912.

A well marked depression was travelling up the Atlantic coast, being central at the time of the ascent off the Nova Scotia coast, and a shallow depression covered Wisconsin.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N, Long. 80° 47' W) on 6th March, 1912.

Instrument Dines Meteorograph.

Beginning of Ascent—10 hrs., 50 min. p.m., G.M.T.

Barometer—741 mm.

Temperature —5.6 C.

Direction of flight at Beginning—West at first and then east above 1000 metres elevation.

Fell —160 km. East

Maximum Height—15.1 km.

Minimum Temperature = —63° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. 3	741	—5.6	
3.5	720	—6.0	—9.0
3.75	698	—8.5	
4.00	676	—8.0	—10.0
4.10	668	—8.0	—10.5
4.35	656	—9.0	
4.50	633	—9.0	—9.5
4.80	595	—9.0	—11.0
5.00	558	—9.0	—10.5
5.25	534	—9.5	—11.0
5.50	523	—10.0	—11.5
5.75	502	—12.0	—13.5
6.00	489	—13.0	—14.5
6.25	458	—15.0	—17.0
6.50	427	—18.0	—20.5
6.75	400	—21.5	—24.0
7.00	373	—25.5	—27.5
7.25	349	—29.0	—31.0
7.50	324	—32.5	—34.0
7.75	292	—35.5	—38.0
8.00	280	—40.0	—42.5
8.25	260	—44.0	—46.5
8.50	241	—49.0	—52.0
8.75	222	—54.0	—57.0
9.00	205	—58.0	—60.5
9.25	190	—60.0	—62.5
9.50	174	—62.5	—63.5
9.75	168	—63.0	
10.00	160	—63.0	
10.25	136	—63.0	
10.50	116	—63.0	
10.75	98.0	—62.0	
11.00	83.0	—61.0	
11.25	82.0	—61.0	

March 6th, 1912.

High pressure conditions prevailed over the country east of the Rocky Mountains, the area of highest pressure being off the Nova Scotian coast.

Balloons despatched from Woodstock on the 2nd and 3rd April were not found.

# REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on 4th April, 1912.

Instrument—Dines Meteorograph.

Beginning of Ascent—11 hrs. 55 min. p.m. G.M.T.

Barometer—738 mm.

Temperature—6 C.

Direction of Flight at Beginning—Northeast in light wind.

Feil—200 km. distant, S. 56 E.

Maximum Height—15.9 km.

Minimum Temperature—65.5 C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	738	6.0	
.50	717	6.5	
.60	708	6.5	4.0
1.00	672	4.5	2.5
1.35	645	7.0	1.0
1.50	632	7.0	1.0
2.0	594	3.5	0.0
2.5	558	-1.5	3.0
3.0	522	0.0	8.0
3.5	490	-9.5	11.5
4.0	459	11.0	14.0
4.5	430	15.0	16.5
5.0	401	19.0	20.5
5.5	376	-23.0	-24.0
6.0	350	27.5	29.5
6.5	325	-31.5	-33.5
7.0	303	-36.0	-38.0
7.5	282	40.5	41.5
8.0	261	43.5	45.0
8.5	243	-47.0	48.5
9.0	225	-50.5	52.5
9.5	208	-54.5	56.0
10.0	192	-58.5	60.0
10.5	177	-62.0	63.0
10.7	171	-64.0	
11.0	162	-65.0	
11.5	150	-65.5	
12.0	138	-64.5	
13.0	117	-62.5	
14.0	100	-61.5	
15.0	84.6	-59.5	
15.9	73.0	-58.0	

April 4th, 1912.

An area of high pressure was off the southern Atlantic coast, while low pressure conditions prevailed over the western Canada and the Western States.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43 8' N., Long. 80 47' W. on 2nd May, 1912.)

Instrument—Dines Meteorograph.

Fell—190 km. distant S. 86° E.

Beginning of Ascent—12.30 a.m. G.M.T.

Maximum Height—12.9 km.

Barometer—735 mm.

Minimum Temperature = -68.5 C.

Temperature = 8.0° C.

Direction of flight at Beginning—Northwesterly  
and then easterly.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	735	8.0	
.5	716	7.5	6.0
1.0	672	5.0	3.0
1.5	631	3.0	0.0
2.0	592	2.0	- 4.0
2.5	557	0.0	- 6.0
3.0	522	- 4.0	- 8.0
3.1	518	- 4.0	- 8.5
3.3	506	- 2.0	- 9.0
3.5	490	- 5.0	- 9.5
4.0	460	- 8.0	-12.0
4.5	431	-11.0	-15.0
5.0	402	-14.5	-19.0
5.5	377	-17.5	-22.5
6.0	352	-21.5	-25.5
6.5	329	-26.5	-28.5
7.0	307	-30.0	-32.5
7.5	285	-33.5	-36.0
8.0	266	-37.5	-41.0
8.5	247	-42.0	-45.0
9.0	230	-45.5	-48.5
9.5	213	-50.0	-51.5
10.0	197	-53.5	-56.5
11.0	167	-62.5	-63.5
11.45	156		-66.0
12.0	143		-68.5
12.9	123		-67.0

May 2nd, 1912.

Pressure was high off the Atlantic coast and low over the Mississippi Valley.



## WINDS, MAY, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
BRITISH COLUMBIA.							
Victoria .....	6338	375	31	1	9	13	S.W.
Point Garry.....	5788	370	36	2	6	16	W.
ALBERTA.							
Edmonton.....	4048	214	17	.....	.....	5	N.W.
Calgary .....	5031	316	32	1	4	10	N.W.
SASKATCHEWAN.							
Battleford .....	5945	390	24	.....	4	9	N.E.
Prince Albert .....	4503	272	21	.....	1	5	N.
Swift Current.....	7377	391	30	1	7	18	N. & W.
MANITOBA.							
Winnipeg.....	9481	713	30	4	9	10	N.E.
ONTARIO.							
Port Arthur.....	7180	469	35	.....	9	15	N.E.
Parry Sound .....	5662	341	21	.....	6	7	N.E.
Southampton.....	7919	540	33	3	8	13	S.
Woodstock.....	6372	432	27	.....	7	6	N.W.
Toronto.....	8181	542	35	3	15	6	E.
QUEBEC.							
Montreal .....	10694	578	.....	.....	.....	.....	S.W.
Quebec .....	10678	899	43	7	15	6	N.T.
MARITIME PROVINCES.							
Fredericton.....	5516	365	32	1	7	10	S.W.
St. John .....	7465	375	31	1	9	10	S.W.
Point Lepreaux.....	8733	650	39	4	13	7	S.W.
Halifax .....	9089	564	39	4	13	11	W.
Flat Point.....	9195	467	41	6	9	11	S.W.
Charlottetown.....	6481	376	30	1	4	19	S.W.

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1912.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.							
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
BRITISH COLUMBIA.																		
S. Vancouver Island																		
Athletia (Beaver Creek)	49 15	124 49	390	54.8	-0.1	17	85.0	13	31.0	9 23.3	2.37	-0.55	0.78	15	16			
Clayoquot	49 11	125 53	27	51.8	+1.8	13	83.0	13	34.0	9 14.3	2.90	-3.07	0.85	11	26			
Cowichan (Tzouhalem)	48 25	123 42	170	55.3	—	6	83.9	14	34.7	1 21.5	2.05	—	0.76	11	20			
Ladner	49 05	123 4	—	56.4	+3.8	12	78.0	14	45.0	2 5 16.0	0.95	-1.49	0.40	4	27			
Nanaimo	49 10	123 37	125	54.4	+1.3	12	80.6	14	34.0	1 19.1	2.41	-0.34	1.70	9	22			
Nanaimo Bay	49 17	124 12	130	53.5	—	1	78.0	13-14	34.0	1 21.2	2.66	—	1.50	14	17			
Salt Spring Island	48 50	123 20	—	55.4	—	3	85.0	14	36.0	1 18.2	1.78	—	1.22	10	21			
Sooke	48 41	123 44	25	54.2	—	2	88.0	13	33.0	1 19.6	1.16	—	0.50	5	25			
Victoria	48 24	123 19	85	56.0	+2.5	19	84.2	13	37.9	1 17.9	1.56	+0.21	1.06	6	25			
N. Vancouver Island																		
Holberg	50 39	128 18	—	52.0	—	2	82.7	14	35.5	10 13.8	4.74	—	0.95	18	13			
Swanson Bay	50 37	126 53	—	51.3	—	3	80.0	13	35.0	8 13.7	6.85	—	1.85	16	15			
Triangle Island	50 52	129 5	680	—	—	—	—	—	—	—	—	—	—	—	—			
Winter Harbour (Quatsino)	50 32	127 40	—	51.8	-1.5	16	83.0	14	35.0	10 17.9	2.82	—	0.54	13	18			
Lower Fraser River																		
Agassiz	49 14	121 31	52	57.8	-2.6	20	92.0	14	39.0	2-16 28.6	3.99	-0.49	1.28	10	21			
Chilliwack	49 16	121 57	21	56.0	+1.5	11	92.0	14	31.0	1 20.9	1.53	-2.27	0.49	12	19			
Hope	49 23	121 25	500	58.2	—	3	91.0	13	36.0	3 27.6	0.71	—	0.21	4	27			
New Westminster	49 13	122 54	330	56.8	+2.5	23	88.4	14	34.3	1 20.6	2.27	-0.97	1.05	10	21			
North Newmen	49 12	122 2	59	56.8	+2.0	20	91.0	14	34.0	1 21.3	2.06	-2.64	0.64	6	25			
Pemberton Hatchery	50 20	122 33	—	54.8	—	4	87.0	14	35.0	9 25.7	1.65	—	0.37	7	21			
Roskin (Stace Falls)	49 16	123 23	125	59.3	—	3	88.0	12	35.0	2 30.0	2.61	—	0.60	11	20			
Stevenson (Garry Point)	49 21	123 17	—	53.2	+0.9	17	72.0	15	33.0	1 16.6	2.25	-0.04	0.85	13	18			
Sumner	49 17	123 5	136	56.1	+2.5	12	81.0	14	35.9	1 16.8	2.35	-1.13	1.08	11	20			
Upper Fraser River																		
Bulone Lake	55 38	126 26	—	—	—	—	—	—	—	—	—	—	—	—	—			
Barkerville	53 02	121 35	4180	45.8	+1.8	24	74.0	14	25.0	4-10 23.8	1.81	-0.70	0.42	8	23			
Chilcoot (Big Creek)	51 40	123 0	3100	49.6	—	9	83.0	13	27.0	10 31.8	0.43	—	0.16	5	26	1	3	
Fort St. James (Stuarts Lake)	54 28	124 12	2280	47.5	+3.8	19	75.5	15	22.0	16 31.3	0.35	-0.74	0.15	4	27			
Quesnelle	52 59	122 30	1700	55.0	+3.7	16	91.0	15	28.0	11 33.9	0.49	-0.36	0.18	4	27			
Okanagan Valley																		
Hedley	49 35	120 10	1771	56.3	—	7	86.0	13-14	37.0	10 25.1	0.58	—	0.30	5	26			
Hedley (Nickel Plate)	49 12	119 48	1350	40.5	—	7	67.0	13	15.0	1 16.5	2.25	—	0.80	9	22			
Keremunc	49 15	119 29	1209	57.2	+2.4	14	84.5	14	35.0	1 19.6	0.76	—	0.48	3	28			
Okanagan Mission (Kelowna)	49 15	119 29	1209	57.2	+2.4	14	84.5	14	35.0	1 26.7	0.38	-0.65	0.19	4	27			2
Penticton	49 29	119 35	—	55.6	—	6	84.0	15	29.0	13 26.8	1.16	—	0.57	10	21			
Princeton	49 29	120 29	1650	53.5	+1.3	15	85.0	14	29.0	16 31.2	0.72	-0.66	0.27	5	26			1
Summerland	49 57	119 0	1100	57.1	—	5	85.0	14	32.0	1 23.3	1.11	—	0.67	5	26			
Vernon (Coldstream Ranch)	50 14	119 15	1246	56.8	+2.7	18	85.0	14	36.0	11 26.7	0.80	-0.48	0.19	11	20			
West Kootenay																		
Crawford Bay	—	—	—	56.4	—	2	81.0	14	37.0	28 26.9	1.79	—	0.62	6	25			2
Fruitvale	49 9	117 31	—	—	—	—	—	—	—	—	—	—	—	—	—			
Grand Forks	49 2	118 27	—	55.9	—	2	86.0	13	30.0	1-13 28.7	1.78	—	0.42	12	19			3
Greenwood	49 52	117 0	1752	52.6	—	3	72.5	14-15	35.0	1 22.5	1.37	—	0.53	7	24			1
Kaslo	50 20	117 50	1413	54.7	—	1	82.0	14	35.0	1 26.9	1.52	—	0.37	8	23			1
Nakusp	49 29	117 21	1760	57.3	+3.3	10	86.0	13	32.0	1 27.1	2.31	+0.13	0.90	6	25			
Naselle	49 5	117 48	3400	52.4	—	9	78.5	14	31.5	1 19.2	2.54	—	0.85	7	24			2
Rossland	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
East Kootenay																		
Akamass	49 30	115 50	—	52.9	—	3	87.0	13	26.0	1 32.0	1.68	—	0.70	5	26			1
Cranbrook	49 1	113 5	2681	55.1	+1.9	16	88.0	16	29.0	1 25.9	1.20	-1.07	0.57	5	26			
Tobago Plains (Elko)	50 34	116 14	—	54.1	—	3	86.0	16	29.0	4-5 28.4	1.12	—	0.69	4	27			
Wilder	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Thompson River																		
Enderby	50 32	119 7	1180	—	—	—	—	—	—	—	—	—	—	—	—			
Kamloops	50 41	120 29	1245	59.7	+1.4	17	88.0	14	39.1	29 26.3	0.32	-0.71	0.11	6	25			
Nicola Lake	50 9	120 39	2130	52.5	+1.0	17	82.0	15	33.0	1 25.8	0.83	-0.29	0.48	5	26			
Salmon Arm	50 42	119 35	1152	57.5	—	—	87.0	14	34.0	11 28.3	0.66	—	0.20	8	23			2
Salmon Arm Exp. Farm	—	—	—	55.9	+1.5	11	87.0	14	31.0	11 28.8	0.88	—	0.23	3	28			
Tranquille	50 41	120 29	—	59.4	—	4	88.0	11	39.0	6 27.5	0.47	—	0.43	2	29			1
North Columbia River																		
Golden	51 16	115 53	2550	52.0	+1.0	11	82.0	14	28.0	2-11 29.1	0.73	-0.21	0.40	2	29			
Chapel	51 14	117 29	4072	46.7	+1.1	13	73.0	15-16	29.0	2 21.5	1.67	-0.04	0.38	9	22			
Revelstoke	51 0	118 6	1476	55.9	+0.8	14	83.0	14	32.0	3 27.0	1.86	-0.45	1.08	6	25			



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1912.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.				Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.							
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.											
<b>SASKATCHEWAN—</b>																									
<i>Qu'Appelle River</i>																									
Broadview	50 23	102 33	1999	49.4	+ 0.7	13	86.0	25	26.0	8-18	23.9	4.33	+2.89	1.10	14	17	0	3							
Brownhill (Greenell)	50 23	102 53	1957	47.8	—	7	81.6	27	24.7	13	22.3	3.30	—	0.66	14	17	2	5							
Brownlee	50 45	105 0	—	51.1	—	7	82.0	16	30.0	11-12	20.5	4.85	—	1.15	9	22	—	—							
Crescent Lake	50 59	102 25	1658	51.4	—	1	86.1	16	27.8	13	26.8	3.21	—	0.90	17	6	15	—							
Estevan	49 12	103 4	1858	46.9	—	1	80.0	27	25.0	13	21.8	2.85	—	0.80	16	24	—	—							
Fort Qu'Appelle	51 5	103 21	—	51.1	—	6	81.7	7	30.0	4	25.0	1.61	—	0.19	16	15	—	—							
Hubbard (Drumague)	51 22	105 23	—	50.0	—	1	83.0	25	28.0	13	24.1	5.80	—	2.16	10	21	—	—							
Imperial	51 28	103 40	1921	49.4	- 2.4	22	81.0	16-26	22.0	4	24.7	3.86	+1.88	1.33	13	18	—	—							
Indian Head	49 43	102 32	2094	47.1	—	3	82.0	16	27.0	12	24.5	3.78	+1.33	1.25	12	10	—	—							
Moose Jaw	50 21	105 35	1759	48.9	+ 0.7	11	81.0	26	24.0	13	21.8	2.88	+1.02	1.00	15	16	—	—							
Moosomin	50 0	101 37	1881	47.5	—	6	82.0	26	24.0	6	20.7	1.72	—	1.00	6	25	1	2							
Muenster (St. Peter's)	52 0	105 0	1870	48.8	—	1	83.0	25	25.0	20	25.6	3.60	—	1.02	14	17	—	—							
Pilger	52 25	105 9	—	51.1	—	8	81.0	16	30.0	12	23.4	3.13	- 2.76	0.11	16	15	—	—							
Pense (Gatesgarth)	52 30	105 0	1879	49.1	- 1.4	28	79.5	16	28.0	16	20.7	3.93	+1.69	1.35	15	18	—	—							
Qu'Appelle	52 4	104 14	2115	47.1	—	1	79.0	26	28.0	7	21.6	4.37	—	1.27	13	18	—	—							
Quill Lake	52 4	104 14	1690	50.2	- 0.7	29	82.0	16	25.0	13	24.6	2.17	- 0.17	1.00	13	—	—	—							
Regina	50 27	104 37	1855	49.7	—	1	80.0	26	29.0	12	23.9	3.15	—	1.41	5	26	—	—							
Srinagar	51 39	102 4	—	50.1	—	1	90.0	25	15.0	2	24.1	3.76	—	1.41	11	20	2	1							
Yarbo (Fairfield)	49 49	104 9	—	49.3	—	4	84.0	27	27.0	18	23.8	4.15	—	1.84	13	18	—	—							
Yellow Grass	49 49	104 9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Yorkton	51 11	102 29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
<i>S. Saskatchewan River</i>																									
Chaplin	50 26	106 39	2202	49.4	- 2.9	26	80.0	15-16	25.6	19	23.5	3.91	+1.77	1.21	15	16	—	2							
East End	49 21	108 49	—	44.4	—	1	81.0	15	24.0	5-9	19.1	1.77	—	0.90	7	24	—	—							
Elvialhurst	49 21	109 29	—	49.1	—	2	83.0	16	22.2	13-21	23.3	2.79	—	0.63	12	19	2	1							
Larchmont (Glenbryn)	49 54	107 27	—	46.4	—	2	77.4	15	25.2	12	19.8	4.12	—	2.12	2	29	—	—							
Maple Creek (Divide)	49 55	109 28	3500	49.1	—	2	80.0	25	21.0	1	25.6	2.90	—	1.29	10	21	—	—							
Oliver	51 20	108 0	—	50.7	- 0.6	25	85.0	15	30.0	10	22.5	2.76	- 0.64	1.24	15	16	—	1							
Rathmaillen	51 20	108 57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Swift Current	50 20	107 45	2429	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
<i>N. Saskatchewan River</i>																									
Battleford	52 41	108 29	1620	52.8	+ 1.3	22	87.0	15	30.0	12	24.3	1.17	—	0.90	6	25	—	—							
Lloydminster	53 18	100 0	—	48.6	—	2	83.0	15	21.0	12-21	26.4	1.90	—	—	12	19	—	—							
Lusland	52 5	109 34	—	48.3	—	6	82.0	15-16	13.0	1-2	28.5	—	—	—	—	—	—	—							
Onion Lake	53 52	105 59	—	49.4	—	5	95.0	26	26.0	21	28.4	1.60	—	0.78	9	22	1	—							
Prince (Monta)	51 6	108 29	1700	49.4	—	2	83.0	15	24.7	12	27.2	2.46	—	0.57	8	27	—	—							
Scott (Ex. Farm)	51 59	109 30	—	49.6	—	5	83.0	15	27.0	21	24.3	0.72	—	0.23	4	23	3	—							
Waseca	53 6	109 29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
<i>The Saskatchewan Forks</i>																									
Chagness	52 32	104 13	—	49.9	—	2	84.0	26	26.0	19	23.3	3.59	—	0.93	11	20	—	1							
Duck Lake	52 54	106 20	—	48.8	—	3	85.0	26	23.0	21	25.4	1.88	—	0.64	10	21	—	—							
Melfort	52 47	104 30	—	50.5	- 1.4	29	85.6	26	28.0	1	24.5	1.79	+0.25	0.56	10	21	—	—							
Prince Albert	53 10	106 0	1432	48.6	—	2	84.2	27	26.2	20	22.7	2.20	—	0.71	8	23	—	—							
Rosthern	52 40	106 20	1657	50.3	+ 0.5	16	83.0	26-27	31.0	11	22.1	3.07	+1.48	0.75	11	20	—	—							
Saskatoon	52 15	106 30	1571	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
<i>Lower Saskatchewan River</i>																									
Lost River	—	—	—	48.7	—	2	84.0	26	27.0	20	21.1	2.56	—	0.65	10	21	—	1							
Cumberland House	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
<b>MANITOBA—</b>																									
<i>Qu'Appelle and Assiniboine Rivers</i>																									
Aweme (St. Albans)	49 42	99 35	1180	53.1	+ 1.5	26	87.5	26	23.5	13	24.2	4.50	+3.01	1.19	19	12	2	2							
Boisevain	50 25	101 1	1703	—	—	1	82.0	27	25.0	13-15	—	4.96	—	1.60	12	19	—	—							
Brandon	49 51	99 57	1175	51.7	+ 0.1	23	84.3	26	21.0	13	22.8	2.94	+1.64	0.62	19	12	1	—							
Carberry	49 42	99 20	1258	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Carman	49 31	98 0	872	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Cypress River	49 33	99 3	1232	50.2	—	7	83.0	27	21.0	13	24.9	5.86	—	1.50	17	14	—	—							
Hillview	49 55	109 33	1400	50.9	+ 0.2	23	82.0	25	23.0	13-15	21.8	2.03	—	0.52	11	22	—	—							
Minnedosa	50 15	99 30	1699	50.5	+ 0.8	28	82.0	26	21.5	13	22.6	3.09	+1.24	0.73	20	11	1	3							
Ninette	49 24	99 38	1363	53.4	—	1	85.0	27	34.0	2-14	22.0	—	—	—	—	—	—	—							
Nineta	49 14	99 51	1649	51.2	—	3	73.8	25	28.1	13	21.9	2.39	—	1.64	7	21	—	—							
Pierson	49 11	101 5	1531	53.1	—	8	79.0	27	24.0	13	21.2	3.74	—	1.10	7	24	—	—							
Pierson	49 34	100 58	1400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
Portage la Prairie	49 57	98 17	—	52.3	+ 1.0	25	86.0	27	28.0	13	25.5	4.64	+2.60	1.16	14	17	—	—							
Portage la Prairie (2)	49 56	98 17	—	52.1	—	7	84.0	27	28.0	13	20.7	4.17	—	1.25	13	18	—	—							
Russell	50 59	102 20	—	47.8	- 1.5	10	82.0	27	23.0	13	21.7	2.26	+0.76	0.45	19	22	—	—							
Therme	49 36	98 40	1212	52.0	+ 2.3	17	84.0	26	24.0	13	22.4	4.05	—	1.57	15	16	1	6							
Virden	49 51	100 55	1444	52.0	—	8	81.0	26-27	25.0	12	26.1	0.93	—	0.40	5	26	—	—							
<i>The Red River</i>																									
Almoussy	49 14	99 20	—	52.4	+ 2.0	10	85.0	26	28.0	13	23.6	4.91	—	2.04	13	18	—	6							
Marion	49 11	98 6	978	51.8	—	7	83.5	27	30.0	13	21.0	2.02	—	0.90	11	20	3	—							
Oak Bank	49 57	96 42	800	51.9	+ 3.1	17	82.0	26	29.0	13	19.8	2.48	+0.63	0.58	12	19	—	—							
Snowy Mountain	50 49	97 14	803	50.5	- 0.4	32	85.0	26-27	25.0	13	21.7	2.25	+0.84	1.00	3	28	—	2							
Winnipeg	49 53	97 7	760	53.5	+ 2.4	38	85.0	26	23.8	13	22.4	3.59	+1.55	1.59	15	16	—	3							

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## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1912.

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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.								
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of autums.	No. of thunders.	No. of fogs.
<b>MANITOBA—Continued</b>																			
<i>Dauphin Lake and River</i>																			
Dauphin	51 8	100 2	957	48.4	—	6	85.0	26	26.0	13	18.8	2.60	—	0.45	9	22			
Moose Horn Bay) Aitkensville)	51 15	99 33		49.3	—	2	83.6	27	28.0	13	18.7	2.46	—	0.47	13	18	4	2	1
Berens River	52 18	97 23	710																
<i>Lake Winnipegosis</i>																			
Swan River	52 6	101 15	1112																
The Pas	53 49	101 15	860	57.5	—	—	82.0	25	24.0	19	20.7	0.56	—	0.34	5	26			
<b>ONTARIO—</b>																			
<i>The Lake Superior Districts</i>																			
<i>Rainy River</i>																			
Kenora	49 48	94 32	1102	49.4	—	13	82.0	26	26.0	5-7	17.5	5.46	—	3.08	9	22	3	4	
<i>Thunder Bay</i>																			
Kakabeka Falls	48 29	89 26	912	45.5	—	4	85.0	26	22.2	14	26.9	3.48	—	0.68	14	17	3	3	
Port Arthur	48 27	89 12	644	45.1	—0.8	31	74.0	25	26.0	14	19.2	3.03	+0.86	0.63	13	18			6
Schreiber	48 51	97 15	933	46.9	—0.8	14	74.2	30	22.5	14	25.7	2.13	—	0.54	9	22	3		3
<i>Algoma</i>																			
Bruce Mines	46 18	83 35	595	50.5	+0.8	14	76.0	26	29.0	14	21.3	4.14	+1.94	1.38	10	21			4
Copper Cliff	46 30	80 50		51.9	—	5	79.0	31	19.0	14	21.6	3.62	—	1.12	7	24			
Porcupine	48 29	81 15		45.5	—	—	83.5	31	21.5	16	26.1								
Providence Bay	45 40	82 14		—	—	1	70.0	30	26.0	14	—	1.24	—	0.50	6	25			1
White River	48 35	85 16	1252																
<i>Nipissing</i>																			
Cochrane	49 2	81 0	946	48.3	—	2	81.5	26	22.0	5-13	25.6	3.37	—	1.74	7	24			3
Haileybury	47 29	79 39	687	50.3	+0.0	15	79.8	26	25.0	14	23.9	4.30	+1.26	1.43	13	18			2
Montreal River	47 8	79 29		49.3	—	2	84.0	31	22.0	1	29.5	4.07	—	0.93	11	20			1
<i>Upper Ottawa River</i>																			
Lake Talon (Rutherglen)	46 15	79 48		52.2	+0.0	17	79.5	30	25.0	1	25.6	6.39	+3.34	1.81	13	18			5
Steele Cliff (Rockcliffe)	46 9	78 6	557	51.4	—0.7	35	79.0	11	24.0	15	26.6	4.48	+1.73	0.84	13	18			1
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																			
Almonte	45 12	76 13	390	55.2	—	1	85.0	28	31.0	1-4	29.3	5.92	—	1.38	18	13			3
Bloomfield	43 59	77 21	260	54.1	—	14	78.0	28	33.0	14	18.7	4.02	—	0.92	11	20			1
Kingston	44 13	76 29	245	53.9	+1.2	37	72.7	24	37.6	1	13.1	5.71	+3.20	1.13	16	15			1
Montague	44 56	75 57		54.1	—	3	81.0	28	33.0	1-15	21.1	5.66	+3.47	1.22	14	17			2
North Gower	45 8	75 43		—	—	5	—	—	—	—	—	2.30	—	0.75	6	25			
Ottawa	45 26	75 42	294	56.2	+0.4	29	81.0	28	34.0	14	17.9	5.56	+3.04	1.48	16	15			3
Renfrew	45 26	76 39	416	54.8	—1.0	25	83.5	28	28.2	1	22.9	5.78	+3.50	1.82	17	14			5
<i>Georgian Bay Counties</i>																			
Barrie	44 23	79 41	839																
Beatrice	45 8	79 20	800	52.1	+0.4	37	75.0	28	26.0	14	23.3	5.86	+2.66	1.22	14	17			4
Coldwater	44 38	79 40	600	52.3	—0.5	23	83.0	23	33.0	3	26.3	4.66	—	0.99	13	18			
Collingwood	44 31	80 2		52.5	+0.2	18	81.0	24	26.0	1	21.4	4.27	+1.56	2.00	11	20			
Elora	43 41	80 24	1274	54.8	+0.8	15	89.0	23	37.0	14	22.4	6.80	+4.06	1.72	16	15			
Gravenhurst	44 54	79 20		52.2	—0.7	35	80.0	23	24.0	1	25.8	5.06	+2.29	1.19	13	18			1
Huntsville	45 19	79 8		55.7	—	6	81.0	7	28.0	13-14	27.3	—	—	—	—	—			1
Morkdale	44 44	79 53	750	53.3	—	1	80.0	24	25.0	14	29.3	—	—	2.04	16	15			1
Orillia	44 37	79 24	775	—	—	10	79.0	24-28	29.0	11	—	4.12	—	0.58	14	17			
Owen Sound	44 34	80 55	597	—	—	—	—	—	—	—	—	4.12	—	1.37	7	24			
Parry Sound	45 10	80 0	635	52.7	+1.1	36	77.0	22	28.0	14	21.8	6.06	+3.01	1.77	17	14			4
Rosville	45 15	78 57	1038	51.2	—	5	77.0	27	26.0	13-14	23.4	5.74	—	1.90	14	17			
Shelburne	44 5	80 47		53.6	—	3	78.0	24	26.5	14	21.0	6.97	—	1.42	12	19			1
Uplands	45 48	79 25		50.7	—0.8	24	78.0	7	21.7	14	27.5	1.84	—	0.42	12	19			3
<i>Lake Huron Counties</i>																			
Biram	43 2	81 55	600	56.4	+1.0	27	82.3	23	31.6	14	18.8	4.72	+1.87	1.02	10	21			6
Clinton	43 32	81 37		54.2	—	1	81.0	24	28.6	14	19.4	6.82	—	1.42	18	13			1
Goderich	43 45	81 41		53.9	—	1	81.0	24	31.0	14	18.1	4.73	—	1.61	14	17			3
Laeknow	43 56	81 30	908	53.2	—0.5	26	78.0	23	26.9	14	21.3	6.08	—	1.02	20	11			8
North Bruce	44 23	81 23		52.3	+0.1	24	80.0	23	32.0	13	—	5.78	+2.71	1.20	14	17			4
Point Clark	44 5	81 44	595	—	—	40	82.0	30	32.0	13	—	6.58	+3.51	1.50	8	23			2
Sarnia	42 59	82 24	586	58.8	+2.9	18	82.0	23	34.0	1-13		5.93	+3.39	1.66	18	12			6
Southampton	44 30	81 21	656	53.2	+1.7	35	81.8	23	29.6	14	19.2	5.93	+3.39	1.66	18	12			3
<i>Lakes St. Clair &amp; Erie, Niagara Peninsula</i>																			
Chatham	42 23	82 12	595	58.5	+1.7	25	84.0	23	32.0	13	23.8	3.32	—	1.09	8	23			
Cottam	42 7	82 45	506	57.9	+0.5	24	85.0	23	28.0	12	28.1	3.52	0.22	0.79	9	22			
Grimsby	43 13	79 36		55.0	—	3	89.0	24	34.0	14	20.0	4.73	—	1.61	14	17			
Pelee Island	41 50	82 36	585	54.6	—2.7	38	68.0	18-25	34.0	13	9.2	1.99	—0.77	1.02	5	26			
Port Parwell	42 30	80 53	592	55.1	—	9	75.0	24	31.0	11	19.2	6.70	—	1.16	9	22			
Port Dover	42 27	80 13	635	54.5	+0.6	37	76.5	24	32.0	14	17.8	6.88	+0.92	0.66	15	16			
Port Stanley	42 40	81 12	592	54.6	+1.0	36	79.2	24	31.8	14	18.3	2.36	—1.03	0.54	17	14			0
St. Catharines	43 9	79 17	347	56.2	—	1	84.0	30	32.0	14	21.7	4.60	+2.45	1.64	12	19			
Stoney Creek	43 13	79 45	292	54.0	—0.8	28	84.0	23	32.0	14	17.6	4.60	+2.45	1.64	12	19			
Wainacabus	42 35	82 41																	
Welland	42 59	79 17	577	56.4	+0.5	25	82.0	28	32.0	14	22.8	4.18	+1.25	1.48	11	20			
Winham Centre				56.6	—	1	82.0	23	31.0	14	21.8	3.11	—	0.77	12	19			
Windsor	42 20	83 4	625	58.8	+0.6	37	84.0	24	34.0	13	18.9	3.11	—	0.63	9	22			



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1912.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION					Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
				Mean.	Difference from average.	Yr's Observations	Highest	Date.	Lowest.	Date	Mean daily range.	Amount	Difference from Average.	Heaviest fall in month.					
ONTARIO—Continued—																			
West-Central Counties																			
Alton	43 51	80 5	1259	57.7	+2.1	32	82.0	23	31.0	13 22 4	5.04	+3.02	1.79	14	17	5	..		
Bramford	43 10	80 21	756	55.7	+2.6	25	76.0	28	30.6	14 19 2	5.63	+2.56	2.02	9	22	..	..		
Guelph	43 33	80 16	1050	58.0	+1.5	27	83.5	23	30.0	14 54 2	4.42	+2.78	1.57	12	19	..	..		
London	42 59	81 13	805	58.0	+3.8	23	79.0	7-26	32.0	14 22 2	5.59	+2.43	1.68	13	18	5	..		
Pars	43 12	80 25	849	53.7	-0.9	45	76.0	8	29.0	14 19 3	8.66	+5.72	1.51	13	18	..	..		
Stratford	43 23	81 0	1191	56.9	+3.3	37	79.0	23	31.0	14 22 4	5.29	+2.48	1.41	16	15	..	..		
Woodstock	43 8	80 47	980	56.9	+3.3	37	79.0	23	31.0	14 22 4	5.29	+2.48	1.41	16	15	..	..		
Lake Ontario Counties																			
Agincourt	43 47	79 16	590	54.2	+0.2	18	83.2	23	29.1	14 19 9	6.51	+2.95	1.57	16	15	2	4		
Aurora	43 57	79 24	880	54.2	—	4	81.3	23	27.5	14 22 7	6.40	+3.62	2.43	7	24	3	..		
Brampton	43 16	79 54	303	55.4	+0.1	37	85.0	23	32.5	14 18 2	6.40	+3.62	2.43	7	24	3	..		
Lorne Park	43 43	79 13	..	55.3	+1.7	71	82.0	23	31.7	14 19 3	5.92	+3.07	1.19	16	15	5	5		
Toronto	43 40	79 24	359	49.9	—	8	75.0	24	34.0	14 15 7	—	—	—	—	—	—	—		
Toronto (Lakeside Home)	43 40	79 21	..	55.0	—	8	82.0	23	30.0	14 20 7	5.80	—	1.32	17	14	..	..		
Uxbridge	44 5	79 8	846	55.0	—	8	82.0	23	30.0	14 20 7	5.80	—	1.32	17	14	..	..		
Wexford	44 44	79 17	555	52.7	—	1	77.0	23-24	29.0	14 18 7	6.58	—	2.16	13	18	..	..		
East-Central Counties																			
Bancroft	45 1	77 50	..	52.1	+0.8	21	81.0	28	25.0	14 25 2	4.26	+1.19	0.90	9	22	..	..		
Haliburton	45 1	78 28	1050	53.7	+1.0	23	84.0	7	24.0	1 28 7	11.57	+8.60	1.40	15	16	..	..		
Kinnisno	44 45	78 35	920	51.7	+1.3	37	81.0	7	28.0	14 22 7	7.09	—	1.56	16	15	..	..		
Lakelse	44 25	78 15	850	53.1	+0.9	25	82.0	29	33.0	14 18 2	8.23	—	2.47	8	23	..	..		
Landsey	44 20	78 45	872	55.1	+1.3	32	80.8	28	30.5	14 22 8	9.45	+6.89	1.68	18	13	1	6		
Mable	44 30	77 29	575	55.0	—	7	80.0	28	29.0	1 18 3	5.92	—	1.23	17	14	7	7		
Peterboro	44 17	78 19	722	55.5	+0.2	43	80.0	28	31.0	14 21 9	6.77	+4.11	1.89	13	18	3	..		
Ursa	44 54	78 18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
QUEBEC—																			
Middle St. Lawrence																			
Brome	45 10	72 36	678	53.8	+0.9	31	82.0	28	24.0	4 21 2	8.69	+5.41	2.68	13	18	7	..		
Cap Rouge	46 46	71 18	..	51.3	—	2	89.0	29	26.2	15 29 4	8.08	—	2.17	14	17	..	..		
D'Irreli	45 55	71 21	896	54.5	—	5	84.5	29	30.0	3 19 6	5.26	—	1.15	15	19	..	..		
Montreal	45 30	73 35	187	56.3	+1.2	37	81.0	28	36.5	14 16 8	5.95	+3.16	1.50	17	14	1	3		
Quebec	46 48	71 13	796	52.6	+1.1	37	81.4	28	30.6	3 19 7	6.93	+3.78	1.44	15	16	2	5		
St. Anne de Bellevue	45 27	73 50	..	55.6	—	6	85.2	28	34.8	14 18 3	5.77	—	1.38	18	13	..	..		
Shawinigan Falls	46 34	72 43	..	48.8	—	9	77.0	26	26.0	6-20 23 5	5.55	—	1.11	14	17	2	..		
Sherbrooke	45 32	72 5	620	54.0	—	9	84.6	29	27.8	3 21 8	6.18	—	1.88	18	13	..	..		
Lower St. Lawrence & Gulf																			
*Anticosti, E. Pt.	49 6	61 42	30	39.2	+3.0	29	50.0	25	32.0	22	..	3.40	—	1.84	5	26	..	..	
*Anticosti, S.W. Pt.	49 32	64 32	39	41.1	-0.5	30	58.0	12	29.0	22	—	39.8	+1.18	0.75	14	17	..	..	
*Anticosti, W. Pt.	48 25	68 53	..	50.4	—	29	76.0	26	32.0	22	..	2.83	+0.33	0.55	11	20	..	..	
*Briquet	49 6	66 45	..	44.9	+0.3	30	66.0	28	54.0	4	..	4.55	+2.48	1.50	4	27	..	..	
*Cape Chatte	49 16	65 20	93	45.2	+1.3	30	70.0	28	32.0	22	..	3.93	+2.88	1.30	8	23	..	..	
*Cape Magdalen	48 31	68 19	20	45.6	+1.3	34	70.2	13	26.0	1 16 8	4.80	+1.84	1.27	16	15	..	3		
Father Point	48 31	68 19	20	45.6	+1.3	34	70.2	13	26.0	1 16 8	4.80	+1.84	1.27	16	15	..	3		
Lake St. John																			
Chicoutimi	48 25	71 5	150	..	..	34	..	..	..	..	1.90	-0.94	0.60	7	24	1	..		
Chicoutimi (2)	47 39	72 15	1333	48.9	-0.4	2	82.0	27	22.0	22 24 4	..	..	..	..	..	..	1		
Lake Elward	47 27	72 48	320	48.3	—	2	76.5	28	22.9	20 24 6	6.23	—	1.15	15	16	..	2		
La Tuque	47 27	72 48	320	..	—	1	87.0	30	25.0	29	..	5.67	—	1.03	13	18	..	2	
Matane	48 54	72 15	360	48.4	—	1	81.0	28	25.5	20 21 6	3.84	—	0.80	13	18	2	..		
*Roberval	48 31	72 13	352	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
The Northwestern Districts																			
Abitibi	48 33	79 22	..	47.8	+1.2	16	74.0	26	22.0	5 22 8	4.97	+1.76	0.98	10	21	..	..		
Manouah Crossing	47 54	73 50	..	45.8	—	1	75.0	12	15.0	15 26 3	5.55	—	0.78	12	19	..	..		
Weymontachizue	47 54	73 50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
White Shore Lake	48 12	75 43	..	45.5	—	1	76.0	26-27	17.0	5 25 0	5.54	—	0.88	15	16	6	3		
The North Shore																			
Clarke City	50 10	66 25	..	43.9	—	74.0	27	21.0	1-2	21 0	3.91	—	1.46	12	19	..	..		
NEW BRUNSWICK—																			
Chatham	47 3	65 29	21	52.4	+2.3	37	84.5	27	26.0	6 21 6	6.88	+4.06	2.50	10	21	2	..		
Dalhousie	48 4	66 22	39	49.7	+4.1	36	83.0	26-27	22.0	1-6 23 7	2.21	—	0.70	6	25	..	..		
Fredericton	45 57	66 36	164	52.3	+1.1	40	83.0	27	28.0	1-6 24 8	2.60	-0.57	0.75	6	25	2	..		
Grand Manan	44 47	66 46	49	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Moncton	46 9	64 55	50	51.6	+2.1	15	83.0	27	24.0	5 23 3	4.07	+1.69	1.25	7	24	..	..		
*Point Lepreau	45 4	66 28	30	45.0	+1.0	34	56.0	27	33.0	20	..	6.75	+2.67	2.81	7	24	2	10	
St. John	45 17	66 4	70	48.9	+0.4	39	67.0	19	34.3	6 12 9	7.49	+3.58	2.75	13	18	..	..		
St. Stephen	45 11	67 16	35	52.9	+2.4	15	83.0	28	23.0	6 25 3	4.43	+2.16	1.54	10	21	1	..		
Sussex	45 38	65 38	96	53.0	+3.5	17	79.5	27	25.0	3 24 6	5.33	+2.70	2.16	7	24	2	..		



## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1912.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION				Days with 01 or more No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs	
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount.	Difference from average					Heaviest fall in month
NOVA SCOTIA—																		
Antigonish.....	45 38	61 59	50	50.8	+ 1.5	37	80.4	27	29.3	2	20.1	6.34	+2.67	1.56	13	18		
Halifax.....	44 33	63 36	88	50.8	—	1	81.0	29	24.0	6	21.6	2.42	—	0.82	10	21		
Kentville.....	45 3	—	40	51.4	—	1	81.0	27	23.0	6	25.0	2.51	—	1.23	3	28	1	
New Germany.....	45 23	64 19	40	52.8	—	1	81.0	27	23.0	1	17.5	1.54	—	0.70	4	27	1	
Paradise.....	45 39	61 22	45	47.6	-0.9	21	73.0	15-27	21.0	3	20.5	6.02	+2.53	1.75	8	23	1	
Port Hastings.....	43 58	59 46	25	43.1	-1.9	—	55.0	29-30	30.0	23	—	1.45	—	0.54	3	28	1	
*Sable Island, E. Pt.....	45 38	61 22	45	47.6	-0.9	21	73.0	15-27	21.0	3	20.5	6.02	+2.53	1.75	8	23	1	
Sydney.....	46 10	60 10	35	49.3	+3.2	39	78.5	28	25.4	23	20.6	2.18	-1.95	0.52	10	21		
Toronto.....	45 22	63 18	77	51.4	+2.2	37	81.0	28	23.2	23	23.3	4.19	—	1.07	13	18	1	
Whitehead.....	45 15	61 8	29	42.7	+0.8	—	56.0	30	32.0	1	—	0.39	—	0.09	5	26	8	
Windsor.....	44 59	64 6	90	51.9	—	10	79.0	28	26.0	6	21.3	3.13	—	0.75	11	20	1	
Wolfville.....	45 7	64 20	—	53.3	+2.4	13	80.4	29	28.2	1	22.0	3.38	-0.37	0.69	11	29		
Yarmouth.....	43 59	66 2	65	49.5	+1.3	31	65.0	26	29.8	1	14.6	5.18	+1.52	1.20	13	18	4	
P. E. ISLAND—																		
Charlottetown.....	46 14	63 10	38	49.8	+1.5	36	75.0	28	27.5	2	17.5	2.74	-0.02	0.87	10	21	2	
Charlottetown (Exp. Farm).....	46 14	63 7	73	50.5	—	2	79.0	27	27.0	1	19.3	2.64	—	0.83	9	22		
Hamilton.....	46 23	63 48	—	49.6	+2.6	14	77.5	28	27.0	23	19.5	2.51	—	0.92	7	24		
NEWFOUNDLAND—																		
*Amour Point.....	51 28	55 51	—	31.6	—	—	48.0	28	27.0	14	—	2.41	—	0.70	7	24	5	
Burin.....	47 0	55 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
*Cape Norman.....	51 38	55 52	—	36.0	—	—	46.0	14	27.0	20	—	1.99	—	0.78	10	21	4	
Fogo.....	49 43	54 17	30	45.2	—	2	72.0	16-29	28.0	23	15.3	2.24	—	0.68	13	18	3	
*Point Riche.....	50 42	57 25	35	39.1	—	28	63.0	28	28.0	29	—	2.69	+0.11	1.31	5	26	7	
Port aux Basques.....	47 35	59 10	27	49.2	—	3	54.5	11	28.0	23	11.7	3.21	—	1.09	10	21	6	
St. John's.....	47 34	52 42	125	48.0	+5.3	39	79.0	13	27.0	7	21.0	2.79	-0.40	0.86	13	18	6	
LABRADOR—																		
North West River.....	—	—	—	38.1	—	—	60.0	11-31	20.0	20	17.2	—	—	—	—	—	—	
BERMUDA—																		
Prospect.....	32 17	64 46	151	69.5	+0.7	21	78.0	26	36.6	7	10.7	1.70	-2.69	0.52	9	22	3	

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING MAY, 1912.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS.
	Amount in inches.	No. of Days of or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake	0.67	7	24	0.33	20					
Annis (Canoë Point)	1.97	12	19	1.00	23					
Armstrong	0.52	4	27	0.15	26-27					
Akamina										
Beaver Lake	1.48	6	25	0.70	19					
Coquitlam	2.48	10	21	0.61	3					
Dennan's Island	1.81	11	20	0.91	20					
Ferguson	1.71	6	25	0.54	26					
Goldstream Lake	1.83	10	21	0.90	20					
Hydraulic	1.15	6	25	0.45	27					
Jordan River	2.07	13	18	0.36	26					
Jordan River (Bear Creek)	2.53	12	19	0.61	28					
Little Qualicum (French Creek, V.I.)	1.93	6	25	1.25	20					
Monte Creek	0.27	3	28	0.25	23					
Nana Harbour	5.46	8	23	0.50	2					
Skidegate										
Shawnigan Lake	2.11	11	20	0.64	20					
Wychefe	0.61	5	26	0.34	22					
ALBERTA—										
Bardo	1.35	2	29	1.05	28					
Bismark	0.29	5	26	0.15	27					
Bruderheim										
Bittern Lake	2.63	14	17	0.94	27					
Brooks	2.70	12	19	1.81	19					
Campese										
Caldwell	1.32	7	23	0.57	21	*	1	*	1	
Conjuring Creek	3.21	6	25	1.52	27					
Dorenele	2.48	10	21	1.50	29					
Dunstable	1.78	11	20	0.61	28					
Grassy Lake	1.00	1	30	1.00	23					
Jumping Pound										
Lacombe										
Loch Sloy										
Lyndon	1.39	4	27	0.57	21					
Lineham	1.60	2	29	1.20	23					
La Pearl	1.33	7	24	0.38	9					
Macleod	0.68	4	27	0.21	21					
Mayercroft	1.10	8	22	0.46	20	*	1	*	2	
Nateby										
Nanton	0.82	7	24	0.22	26					
Okotoks	1.61	4	26	0.62	19					
Pekisko	1.30	8	21	0.31	20	2.0	2	1.5	2	
Ponoka	0.15	1	30	0.15	13					
Sion	2.21	14	17	1.21	27					
Seven Persons	1.33	5	26	0.75	27					
Tilley										
SASKATCHEWAN—										
Aberfeldy	1.03	7	24	0.31	4					
Gull Lake	2.70	6	25	1.61	28	*	2	*		
Gull Lake (Fks. Swift Cur.)	1.76	9	21	0.74	27	2.0	1	2.0	5	
Last Mountain	3.30	10	21	1.20	30					
Maple Creek	2.62	13	17	1.12	28	4.0	1	4.0	6	
Meadow Lake	1.38	7	24	1.05	26					
Nashlyn (Kelvinhurst)										
Willow Creek	1.95	3	28	1.15	27					
MANITOBA—										
Cartwright	3.97	15	16	1.84	26					
Deloraine	4.46	11	20	1.25	27					
Greta										
Norquay (Swan Lake)	4.68	12	14	1.04	28	*	5	*	3-26	
Rapid City	4.41	13	18	2.06	7					
Rose Bank	4.81	9	22	2.37	27					
ONTARIO—										
Deer Park	5.55	13	18	1.88	21					
Dutton	0.89	5	26	0.50	13	*	1	*	13	
Ennisdale	6.85	15	16	1.64	24					
Fort Frances	1.65	14	17	0.46	14					
Georgetown	6.75	18	12	1.33	17	*	3	*	13	
Grantham	4.12	16	15	1.46	21					
Grand Valley	5.79	15	16	1.10	29					
MacCoe	6.22	11	20	1.41	29					
Orangeville	8.01	16	14	1.22	21	*	1	*	14	
Sydenham	6.22	7	24	1.80	22					
Strathroy	4.03	10	21	0.98	21					
Watford	3.81	11	20	0.60	21-29					
Westport	5.11	10	21	1.50	17					
Westminster	3.93	5	26	1.24	21					
Wooler	6.39	13	18	1.81	30					
Wesley	7.57	17	13	2.22	29	*	1	*	14	
Wattenwyl	5.59	13	17	1.17	28	3.7	1	3.7	13	
Warton	6.08	7	23	2.05	22	3.0	1	3.0	13	
QUEBEC—										
Kipawa	4.06	11	20	0.98	11	19.5	2			
Lucerne	5.21	7	24	2.00	29					
Perkins Mills	5.85	14	17	1.21	29					
Quinze Jans	5.91	9	22	1.20	13	8.0	2	8.0	14	
Timiskaming	4.08	8	23	0.96	12					
NEW BRUNSWICK—										
Pont Escommac	5.20	7	24	2.70	31					
NOVA SCOTIA—										
Big Mashamush Lake (Ma- honey)										
Kentville	2.42	10	21	0.82	16					
Redegomakonge Lake (New Grafton)										
Milton	5.95	7	24	2.55	30-31					
Mashamush River (Mahoney)										
New Germany										
South Alton	3.79	9	22	1.07	17					
White Rock	2.45	6	25	0.75	17					

## DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.

## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE MONTH OF MAY, 1911.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND				
				Mean reduced.	Highest.	Lowest.	Range.			N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.		
BRITISH COLUMBIA—																								
Astin	50	35 133	38	2210	29.94	30.3	79.59	82	6	1	0	0	1	0	37	1	4	7	62	11	28.7 S			
Barkerville	53	2 121	35	4180	29.95	30.4	29.54	0.86	5	3	0	0	1	0	8	3	0	5	62	1	28.8 SW			
Kamloops	50	42 120	29	1245	29.91	30.3	29.45	0.91	59	6	4	2	1	17	5	1	23	1	57	5.7	2			
Nanaimo	49	10 123	57	125	29.94	30.2	29.57	0.70	81	5	4	0	1	5	13	0	2	11	31	62	23.8 NW			
Prince Rupert	54	18 150	18	170	29.96	30.2	29.53	0.72	71	2	16	0	1	5	13	0	0	25	62	5.4	2			
Triangle Island	50	52 129	5	680																				
Tranquille	50	41 120	29		28.61	29.0	28.16	0.89	62	5	2	2	0	1	2	0	9	14	1	23	62			
Vancouver	49	17 123	5	136	30.34	30.3	29.64	0.72	74	5	4	0	0	6	11	6	1	4	9	11	62	3.7	10	
Victoria	48	24 123	19	85	30.30	30.3	29.64	0.69	68	5	3	0	1	7	1	10	21	6	2	5	62	9.5	24	
YUKON—																								
Dawson	64	4 139	20	1200	29.84	30.4	29.30	1.11	4	1	4	0	4	0	11	0	2	1	40	62	2	0	12.13 S	
ALBERTA—																								
Badli	51	10 115	34	4542	29.94	30.4	29.49	0.99	50	5	4	0	8	3	2	1	25	6	2	13	62	5.8		
Calgary	53	33 113	30	2158	29.59	30.3	29.17	0.95	63	5	2	4	7	2	0	1	2	8	30	2	62			
Edmonton	50	30 103	47	2115	29.84	30.4	29.28	1.21	98															
Medicine Hat	50	1 110	37	2161	29.86	30.5	29.59	0.91	4	8	7	2	2	2	3	20	9	5	6	62				
SASKATCHEWAN—																								
Buttleford	52	41 108	20	1620	29.89	30.4	29.46	1.00	73		9	13	7	14	0	7	7	24	13	93				
Moose Jaw	50	21 105	35	1759	29.84	30.4	29.20	1.20	72															
Prince Albert	53	10 106	0	1432	29.88	30.4	29.45	1.00	69		10	15	16	3	1	0	3	4	14	60				
Qu'Appelle	50	30 103	47	2115	29.84	30.4	29.28	1.21	98		6	21	4	0	3	5	5	10	0	62				
Swift Current	50	20 107	45	2439	29.62	30.5	29.37	1.16	77		13	5	1	16	12	14	18	18	5	93				
MANITOBA—																								
Aweme (St. Alban's)	49	42 99	33	1180	29.65	27.96	29.21	1.25		6	7	2	16	5	3	1	7	1	12	19	62	8	28.5 E	
Minnedosa	50	15 99	50	1699	29.86	30.52	29.17	1.36																
The Pas	53	49 101	15	860	29.88																			
Winnipeg	49	53 97	7	760	29.87	30.59	29.16	1.43		6	7	14	16	4	10	0	4	4	6	4	62	11	30.5 NE	
ONTARIO—																								
Cochrane	49	2 81	0	946	29.38	30.46	29.44	1.02		25	1	6	5	8	0	4	5	2	62					
Halifax	47	29 79	39	687	29.94	30.32	29.30	0.99		17	4	4	2	3	11	2	8	9	62	11	IV	27.8 SW		
Kingston	44	13 76	29	285	29.94	30.26	29.52	0.74		2	20	1	6	3	20	6	4	0	62	11	IV	28.3 SW		
London	42	59 51	13	808	29.32	30.22	29.51	0.71	5	10	3	40	20	11	0	5	8	6	0	95				
Ottawa	45	26 75	42	294	29.90	30.26	29.40	0.82		1	1	22	2	5	15	16	0	0	62	8	1	16 E		
Perry Sound	45	19 80	0	635	29.92	30.30	29.45	0.85		4	17	4	10	2	2	6	4	3	62	16	24	2 NE		
Port Arthur	42	57 59	12	644	29.93	30.29	29.37	0.99	6	10	11	29	9	6	6	7	4	4	62	8	2	10 W		
Port Stanley	42	40 81	13	592	29.91	30.23	29.44	0.79	6	11	3	1	10	7	1	8	5	12	15	62	7	3	13 NW	
Southampton	44	30 81	21	656	29.92	30.26	29.45	0.81	7	12	2	19	9	3	18	3	9	6	1	62	11	3	13 NE	
Stoney Creek	46	9 78	6	557	29.82	30.29	29.34	0.95		2	1	2	1	0	0	0	0	4	62	2	1	10 W		
Toronto	43	40 79	24	350	29.22	30.23	29.52	0.71		4	7	23	2	0	8	8	5	5	62	11	2	16 E		
White River	48	35 55	16	1252																				
Woodstock	43	8 40	47	680	29.87	30.21	29.20	0.81	78	7	10	0	7	11	16	8	18	10	21	1	92	9.2	2	8 SW
QUEBEC—																								
Father Point	48	31 68	19	20	29.87	30.25	29.41	0.84		3	2	26	0	0	2	7	19	1	2	62	16	4	14 W	
Montreal	45	30 73	35	187	29.91	30.20	29.41	0.89	6	11	0	16	0	8	11	10	10	6	1	62	13	3	14 W	
Quebec	46	48 71	13	296	29.91	30.37	29.44	0.93	6	11	1	29	1	3	2	9	11	6	0	62	15	4	1 NE	
NEW BRUNSWICK—																								
Chatham	47	3 65	29	21	29.06	30.42	29.34	1.08		6	5	2	4	12	2	0	16	18	7	1	62	6	3	19 NW
Fredericton	45	57 66	36	164	29.47	30.37	29.38	0.99	57	6	5	8	9	6	5	11	2	16	18	0	62	8.5	17	19 NW
Grand Manan	44	47 66	46	49																				
St. John	45	17 66	4	70	29.97	30.39	29.32	1.07		6	10	6	7	2	4	28	15	3	1	4	62	11	28	14 SW
NOVA SCOTIA—																								
Halifax	44	39 63	36	88	30.00	30.42	29.39	1.03			2	14	1	3	11	6	21	4	0	62	12	36	14 SW	
Sydney	46	10 60	19	35	30.00	30.41	29.40	1.01		6	11	9	12	0	1	2	14	21	1	2	62	8	18	19 SW
Wolville	45	7 64	20		29.93	30.39	29.32	1.07			7	12	3	4	4	8	12	9	3	62	11	21	14 SW	
Yarmouth	43	50 66	2	65	30.01	30.40	29.28	1.12			7	4	4	5	12	16	10	4	2	62				
P. E. ISLAND																								
Charlottetown	46	14 63	10	38	29.98	30.44	29.39	1.05		10	7	2	2	14	22	0	0	5	62	8	27	14 S		
NEWFOUNDLAND																								
Barin	47	0 55	10	27																				
Fogo	49	43 34	17	30	29.93	30.46	29.40	1.06		3	8	1	5	2	11	18	9	4	0	62				
Port aux Basques	47	35 39	10	27	29.98	30.35	29.43	0.92		1	3	31	2	1	13	8	4	0				17	42	9 F
St. John's	47	34 52	42	125	29.89	30.32	29.41	0.91		5	10	3	1	11	20	7	2	62	9			27.5 NF		
REBUDA																								
Prospect	32	17 64	46	151	30.17	30.40	29.38	0.52		10	4	11	3	18	5	9	3	1	62	11	22	14 NW		

DEPARTMENT OF MARINE AND FISHERIES, CANADA:—METEOROLOGICAL SERVICE.  
 FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
 THE SECOND CLASS, DURING THE MONTH OF MAY, 1912

STATION	DIRECTION OF WIND FROM									Total number of Observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	1	2	8	1	0	0	13	16	0	31
Edmonton.....	4	0	2	3	2	3	15	2	0	31
Fort Resolution.....	8	8	5	12	6	7	7	9	0	62
Halkirk (Emsburg).....	0	13	0	1	5	3	1	33	6	62
Hillsgrove.....	0	9	0	2	1	6	1	12	0	31
Loveland.....	8	0	3	0	0	0	13	0	7	31
Macleod.....	7	16	0	0	7	13	11	5	3	62
Pacan (Victoria).....	1	1	3	5	0	7	6	6	2	31
Parkland.....	18	7	7	4	2	6	12	26	11	93
Ranfurly (Whitefield).....										
SASKATCHEWAN—										
Chaplin.....	0	3	2	0	0	1	5	20	0	31
Crescent Lake.....	1	14	2	0	4	1	4	5	0	31
Estevan.....	4	7	2	2	2	3	7	3	1	31
Grenfell (Brownhill).....	1	21	6	9	1	10	2	12	0	62
Indian Head.....	3	17	14	10	0	16	7	14	2	83
Larchmont (Glenbrian).....	1	3	8	1	0	8	16	12	0	62
Moosomin.....	2	3	7	4	7	2	3	1	0	31
Muenster (St. Peter's Monastery).....	0	19	0	0	0	20	7	15	1	62
Onion Lake.....	4	10	3	0	0	1	11	2	0	31
Pense (Gatesgarth).....	1	7	1	7	0	7	1	7	0	31
Waseca.....										
MANITOBA—										
Berens River.....	1	35	12	5	1	17	5	12	5	93
Brandon.....	11	18	19	7	0	14	6	18	0	93
Hillview.....	6	16	12	1	4	8	5	5	5	62
Moose Horn Bay (Aitkensville).....	11	11	7	4	3	3	6	12	5	62
Morden.....	13	1	2	3	5	4	2	1	0	31
Oak Bank.....										
Stony Mountain.....										
ONTARIO—										
Agincourt.....	2	4	29	8	8	17	5	18	2	93
Alton.....	9	0	1	10	15	7	3	12	36	
Beatrice.....	14	2	11	10	14	1	2	4	4	62
Biram.....	8	1	12	4	8	4	14	11	0	62
Clinton.....	15	0	7	5	20	6	6	3	0	62
Cottam.....										
Gravenhurst.....										
Lindsay.....	7	9	17	7	26	1	18	8	0	93
North Bruce.....										
Orillia.....										
Owen Sound.....										
Point Clark.....	13	1	12	7	18	5	4	1	0	62
Port Dover.....	3	2	6	3	5	4	6	2	0	31
Scarboro Junction.....	0	39	6	0	0	23	22	3	0	83
Stoney Creek.....	8	0	2	5	7	0	9	0	0	31
Uplands.....	0	1	13	1	2	3	3	4	4	31
Wexford.....										
QUEBEC—										
Abitibi.....	27	8	14	1	9	6	20	2	0	87
Anticosti, W. Pt.....	11	6	12	3	25	5	13	18	0	93
Anticosti, Heath Point.....	0	32	1	0	15	25	12	8	0	93
Bicquet.....	0	2	9	0	31	5	30	1	2	93
Brome.....	13	0	20	0	0	3	40	0	26	83
Cape Chatte.....	4	0	4	2	19	2	0	40	17	83
Cape Magdalen.....	3	6	4	2	0	3	0	3	1	93
Chicoutimi.....	0	18	0	43	30	28	0	3	1	93
NEW BRUNSWICK—										
Dalhousie.....	0	0	18	0	1	0	11	0	0	30
Moncton.....	0	4	0	7	0	5	4	10	1	21
Pt. Lepreaux.....	3	5	18	2	21	18	8	6	0	81
Sussex.....	0	8	0	0	0	5	6	0	12	31
NOVA SCOTIA—										
Kentville.....	2	4	2	0	6	3	12	2	0	31
Port Hastings.....	0	7	0	4	4	14	0	2	0	31
Sable Island, E. Pt.....	1	14	0	14	2	46	0	16	0	93
Truro.....										
Whitehead.....	14	4	6	7	17	39	1	5	0	93
PRINCE EDWARD ISLAND										
Hamilton.....	1	0	4	0	3	16	2	5	0	31

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
MAY, 1912.

STATION.	HOURS ENDING.															
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria.....			.08	.36	.43	.45	.52	.55	.62	.56	.68	.69	.61	.55	.48	.29
Salmon Arm.....			.20	.44	.47	.56	.65	.65	.66	.61	.62	.58	.62	.62	.56	.42
Nanaimo.....				.10	.32	.37	.44	.50	.54	.55	.54	.57	.51	.57	.48	.38
Vancouver.....		.01	.27	.36	.43	.46	.47	.59	.57	.60	.61	.61	.58	.54	.51	.33
Agassiz.....				.25	.36	.46	.42	.46	.51	.50	.54	.49	.44	.50	.48	.06
Tranquille.....			.23	.60	.68	.72	.78	.76	.70	.64	.68	.62	.63	.48	.41	.18
Summerland.....		.07	.41	.45	.52	.61	.75	.68	.68	.58	.62	.62	.62	.58	.53	.24
Kamloops.....			.09	.30	.53	.62	.63	.69	.68	.71	.70	.74	.65	.53	.35	.10
Edmonton.....		.10	.42	.60	.58	.61	.60	.62	.65	.58	.59	.61	.60	.62	.52	.33
Lethbridge.....		.14	.49	.60	.66	.69	.69	.74	.73	.72	.66	.70	.62	.60	.54	.39
Lacombe.....		.08	.46	.54	.69	.58	.55	.66	.64	.65	.57	.55	.56	.58	.44	.37
Medicine Hat.....		.09	.49	.53	.59	.61	.63	.67	.69	.63	.62	.60	.56	.56	.42	.37
Fort Dunvegan.....		.08	.66	.69	.71	.75	.80	.82	.72	.72	.67	.66	.69	.73	.61	.47
Fort Vermilion.....		.01	.04	.90	.66	.86	.87	.90	.88	.82	.80	.75	.79	.68	.50	.30
Battleford.....		.03	.15	.41	.55	.57	.61	.63	.60	.63	.62	.60	.56	.47	.47	.10
Indian Head.....			.18	.36	.38	.39	.43	.41	.47	.49	.40	.37	.33	.29	.31	.02
Moosejaw.....		.14	.39	.52	.57	.56	.58	.54	.57	.58	.43	.50	.50	.49	.55	.46
Scott.....		.45	.50	.53	.57	.61	.65	.62	.66	.65	.58	.57	.55	.52	.46	.13
Rosthern.....		.10	.28	.46	.53	.53	.50	.54	.51	.63	.62	.61	.71	.57	.54	.50
Brandon.....		.02	.27	.48	.47	.54	.65	.59	.60	.59	.59	.52	.49	.39	.28	.15
Winnipeg.....		.01	.23	.40	.42	.50	.56	.58	.57	.62	.67	.60	.48	.39	.46	.21
Halifax.....		.02	.39	.52	.61	.62	.65	.57	.58	.56	.56	.55	.52	.52	.47	.08
Woodstock.....		.08	.32	.41	.52	.54	.57	.61	.59	.56	.52	.53	.53	.52	.42	.16
Lindsay.....			.24	.31	.37	.42	.49	.53	.54	.52	.47	.51	.47	.29	.61	
Barrie.....		.13	.25	.36	.44	.44	.46	.49	.43	.43	.49	.46	.44	.39	.09	.02
Toronto.....		.07	.12	.29	.36	.51	.56	.68	.66	.58	.51	.51	.50	.50	.46	
Kingston.....		.01	.29	.44	.44	.45	.48	.54	.54	.52	.57	.58	.58	.45	.37	.22
Ottawa.....		.01	.29	.42	.48	.56	.57	.59	.60	.56	.55	.53	.44	.41	.37	.02
Montreal.....		.03	.29	.42	.42	.47	.47	.50	.55	.59	.61	.56	.46	.42	.31	.09
Cap Rouge.....		.28	.49	.48	.51	.52	.48	.51	.47	.46	.50	.49	.45	.38	.25	
Quebec.....		.23	.46	.45	.50	.54	.52	.52	.48	.51	.55	.51	.43	.38	.19	
Sherbrooke.....		.06	.41	.45	.42	.47	.50	.53	.58	.60	.56	.59	.45	.49	.47	.01
Fredericton.....		.01	.25	.32	.37	.44	.50	.52	.59	.63	.59	.59	.56	.55	.47	.01
Charlottetown.....		.03	.38	.47	.50	.58	.62	.61	.52	.58	.57	.61	.59	.53	.45	

	Victoria.	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosthern.	Brandon.	Winnipeg.	Halifax.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sherbrook.	Fredericton.	Charlottetown.
Registered duration in hours.....	212	239	176	215	169	252	248	228	252	279	246	251	306	290	203	157	232	255	216	186	211	238	200	159	165	181	211	204	192	194	184	211	206	290
Percentage of possible duration %.....	45	50	37	45	36	52	51	47	51	56	50	53	61	58	41	33	48	52	50	39	41	50	41	35	30	40	42	44	46	41	41	46	45	49
Difference from average %.....	+3	—	—7	—	+4	—	—	—	—	—	—	—	—	—	—6	—15	—	—	—9	—1	—1	—7	—1	—11	—9	—8	—6	—4	—5	—	—	—	+1	
Maximum percentage in one dry %.....	67	90	78	90	80	92	90	79	85	96	90	91	95	80	80	83	95	100	93	79	85	94	88	79	88	86	92	91	100	92	89	94	97	96
Date of maximum.....	7	12	29	7	12	14	8	28	13	28	6	28	10	30	7	25	8	8	24	8	25	15	10	10	31	31	10	10	8	4	1	2	6	
Number of days completely clouded.....	3	1	6	3	10	0	3	1	2	2	4	4	3	2	4	6	6	5	3	6	5	1	5	5	3	8	6	7	8	6	6		6	

*Auroras recorded:—*

- 1.
2. Sion.
3. Sion.
4. White Shore Lake III, Quebec IV.
5. Chicoutimi.
- 6.
- 7.
8. Mistassini IV, Sion.
9. Mistassini III, Sion.
10. Sion.
11. Cartwright II, Aitkensville II, Aweme II, Kakabeka Falls I, Brandon, Schreiber II, Waitefield I, Sion, Montreal III, Quebec IV, Charlottetown IV, Yellow Grass, Muenster IV, Halkirk, Kenora II.
12. Cartwright IV, Rapid City II, Aitkensville III, Aweme III, Kakabeka Falls III, Treherne III, Agincourt IV, Schreiber IV, Waitefield IV, Hillsdown IV, Minnedosa III, Yellow Grass, Pambrum II, Estevan, Prince I, Kenora II.
13. Kakabeka Falls IV, Agincourt IV, Schreiber IV, Waseca, Crescent Lake IV, Kenora III.
14. White Shore Lake III, Waseca, Pambrum I, Crescent Lake IV.
15. White Shore Lake IV, Waseca.
- 16.
- 17.
- 18.
19. White Shore Lake III.
20. Aitkensville IV, White Shore Lake III.
- 21.
- 22.
- 23.
24. Sion.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
31. Aitkensville IV, White Shore Lake III.



*Thunder Recorded:—*

1. Muenster.
2. Cartwright, Crescent Lake.
3. Cartwright.
4. Morden, Hamilton, Almasippi, Birnam, Treherne, Waitefield, Kenora.
5. Hamilton, Almasippi, Birnam, Brantford, Paris, Treherne, Winnipeg, Toronto, Dutton.
6. Mistassini.
7. Cartwright, Rapid City, Wesley, Westminster, Perkins' Mills, Beatrice, Aweme, Midland, Quinze Dam, White Shore Lake, Almasippi, Birnam, Madoc, Rouville, Haliburton, Clinton, Lucknow, Treherne, Rutherglen, Ottawa, Southampton, Cochrane.
8. Rapid City, Westport, Agincourt, Chicoutimi West, White Shore Lake, Madoc, Haliburton, Bruce Mines, Renfrew, Mistassini, Hillsdown, Quebec, Halkirk, Oyen.
9. Cartwright, Rapid City, Westport, Aitkensville, Brome, Aweme, Almasippi, Treherne, Harmattan, Kingston, Rathmullen, Crescent Lake.
10. Kakabeka Falls, Winnipeg, Kenora.
11. Rapid City, Deloraine, Haliburton, Port Arthur.
12. Wooler, Almonte, Madoc, Renfrew, Bloomfield, Port Dover, Toronto.
13. Brome.
14. Sussex.
15. Hydraulic.
16. Nanton, Deloraine, Yellow Grass, Crescent Lake, Lost River, Chagoneess.
17. Brome, D'Israeli, Father Point, Quebec, Halkirk.
18. Wiarton, Beatrice, Birnam, Clinton, Port Stanley, Southampton, Chaplin.
19. Georgétown, Sion, Charlottetown.
20. Georgetown, Stratford, Wesley, Westminster, Agincourt, Birnam, Brantford, Paris, Clinton, Lucknow, Port Dover, Port Stanley, Toronto.
21. Georgetown, Wesley, Westminster, Birnam, Brantford, Paris, Clinton, Lucknow, Port Stanley, Southampton, Hydraulic.
22. Wiarton, Wesley, Brome, Birnam, Madoc, Bruce Mines, Clinton, Lucknow, Port Stanley, Southampton, Quinze Dam.
23. Deer Park, Wiarton, Emsdale, Wesley, Westport, Wattenwyl, Perkins' Mills, Pt. Lepreaux, Beatrice, D'Israeli, Quebec, White Shore Lake, La Tuque, Rouville, Haliburton, Bruce Mines, Paris, Renfrew, Lucknow, Lake Edward, Hydraulic, Shawinigan Falls, Kakabeka Falls, Rutherglen, Fredericton, Montreal, Chatham, N.B., St. John, Parry Sound, Cochrane, Uplands, Shelburne, Lakefield.
24. Georgetown, Stratford, Westport, Pt. Lepreaux, Agincourt, Brome, Markdale, Almonte, D'Israeli, Hamilton, Montague, Port Hastings, La Tuque, Birnam, Madoc, Providence Bay, Haliburton, Peterboro, Brantford, Renfrew, Quebec, Charlottetown, Lucknow, St. Stephen, Lake Edward, Rutherglen, Fredericton, Port Stanley, Ottawa, Montreal, St. John, Toronto, Parry Sound, Uplands.
25. Rapid City, New Germany, Windsor, N.S., Kentville, Sussex, St. John, Kenora.
26. Okotoks, Nanton, Cartwright, Morden, Almasippi, Treherne, Waitefield, Rathmullen, Pambrum, Pense, Crescent Lake, Chaplin, Halkirk, Hydraulic.
27. Cartwright, Emsdale, Georgetown, Wesley, Wattenwyl, Perkins Mills, Aitkensville, Agincourt, Morden, Almasippi, Montreal River, Oakbank, Haliburton, Bruce Mines, Peterboro, Paris, Lucknow, Treherne, Rutherglen, Waitefield, Winnipeg, Chatham, N.B., Father Point, Minnedosa, Parry Sound, Southampton, Cochrane, Rathmullen, Birnam, Kenora.
28. Georgetown, Westport, Westminster, Beatrice, Agincourt, Brome, Almonte, Montague, Madoc, Haliburton, Peterboro, Brantford, Renfrew, Lucknow, Shawinigan Falls, Kakabeka Falls, Rutherglen, Sion, Ottawa, Montreal, Father Point, Toronto, Parry Sound, Quebec, Uplands.
29. Rapid City, Brome, D'Israeli, Oakbank, Sion, Port Stanley.
30. Okotoks.
31. Sion, Harmattan, Muenster, Crescent Lake, Halkirk.

## FORECASTS FOR MAY 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1145. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	76	58	14	4	85.5
Saskatchewan.....	72	54	14	4	84.7
Manitoba.....	72	55	12	5	84.7
Lake Superior.....	98	75	20	3	86.7
Lower Lake Region.....	109	92	15	2	91.3
Georgian Bay.....	109	91	13	5	89.4
Ottawa Valley.....	89	66	14	9	82.0
Upper St. Lawrence.....	92	70	13	9	83.1
Lower St. Lawrence.....	106	74	22	10	80.2
Gulf.....	105	71	30	4	81.9
Maritime Provinces West.....	107	74	28	5	82.2
Maritime Provinces East.....	110	74	31	5	81.4
Total.....	1145	854	226	65	84.5

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
June 22, 1912.

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DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

JUNE, 1912

No. 6

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

A new section, containing the results of the observations obtained from balloon ascensions, is added to this number of the Review under the heading "Free Air Data." The data for 1911 were published in a supplement to the Review for that year, and it is now intended to publish the results of the balloon ascensions in the Review for the month to which they belong if the balloons have been found before publication.

## TEMPERATURE.

### BRITISH COLUMBIA.

The month began with cool weather, but warmer conditions obtained at the end of the first week, maxima of about 90° occurring on the 7th in the Kootenays and the Okanagan Valley. The days continued fine and very warm until the 12th when began a cold, wet period which lasted for five days. From the 18th to the 27th the days, with the exception of the 21st, were marked by exceptionally high temperatures, ranging between 90° and 100° in the southern interior. The last three days were very much cooler, especially in the northern portion of the Province where there was frost. The mean daily temperature exceeded the average over practically the whole Province, by 2° to 3° on Vancouver Island, by 3° to 6° in the Kootenays and the Okanagan Valley and adjacent territory; but in the Cariboo region and along the Upper Fraser, the difference was from 1° to 2°, while in the Queen Charlotte Islands there was a small negative difference from average.

### THE WESTERN PROVINCES.

Over the basin of the North and South branches of the Saskatchewan River the mean daily temperature was from 4° to 7° higher than normal. About the headwaters of the Peace and Athabasca Rivers there was an excess over average, amounting to from 3° to 6°. In the extreme southeastern portion of Saskatchewan the average was exceeded by barely 1°. From 1° in Eastern Manitoba the difference from average increased to 3° in the north-western portion. The most noteworthy feature of the month was the period of very warm weather which began about the 18th and lasted till the 28th, during which the temperature attained maxima between 80° and 100°. At points near the 55th parallel light frost was recorded on three nights during the first week, but in the southern districts there were few places which recorded temperatures lower than 34°.

## ONTARIO.

From the Lake of the Woods to the western shores of Lake Superior the mean daily temperature was about 1° above average, but from Lake Nipigon eastward to the Atlantic Ocean temperatures were lower than normal. In the District of Algoma the deficiency was little more than 1°, but in the District of Nipissing, on the eastern shore of the Georgian Bay, and along the Ottawa River it ranged between 3° and 5°, and in the Peninsula between 1° and 3°.

The maximum temperature of the first day exceeded 80° in nearly all districts, but from the 2nd to the 25th readings of the maximum were on several days less than 70° and seldom higher than 75°.

## QUEBEC.

With the exception of the 2nd and the 11th the first 17 days were very cool, frost occurring as late as the 14th in some districts of the western portion of the Province. Temperatures of 80° or higher, were recorded on the 2nd, and during the forepart of the last week. The month ended, however, with a return to cooler conditions. The mean daily temperature was 4° lower than average over the whole Province, except locally on the southern shore of the Lower St. Lawrence.

## THE MARITIME PROVINCES.

In Nova Scotia temperatures were nearly normal, the lower counties recording a small deficiency, and the northern counties a small excess, over average. In New Brunswick the difference from average was between 1° and 2° below. From the 23rd to the 27th there was a warm period, during which southern stations registered maxima ranging between 80° and 90°.

## PRECIPITATION.

### BRITISH COLUMBIA.

Rain fell on an average of eight days, but the amount was less than average, except locally. It was of general occurrence from the 10th to the 13th, and on the 26th and 27th, but was recorded also, although locally, about the 20th.

### THE WESTERN PROVINCES.

In Alberta, at the headwaters of the Bow and Belly Rivers there was an excess over the average amounting to approximately one inch; but further east in the same Province there was more than an equal deficiency. To the north the rainfall was nearly average.

In Saskatchewan and in Manitoba there was very much less than average precipitation. The normal rainfall for June varies according to locality between three and four inches, but the amount recorded lacked from one to three inches of these figures. Since, however, the rain was well distributed throughout the month, the deficiency was not of a serious nature.

## ONTARIO.

The average frequency of rainfall was seven days, while the total amount showed an average deficiency of about one inch and one-half over the whole Province.

## QUEBEC.

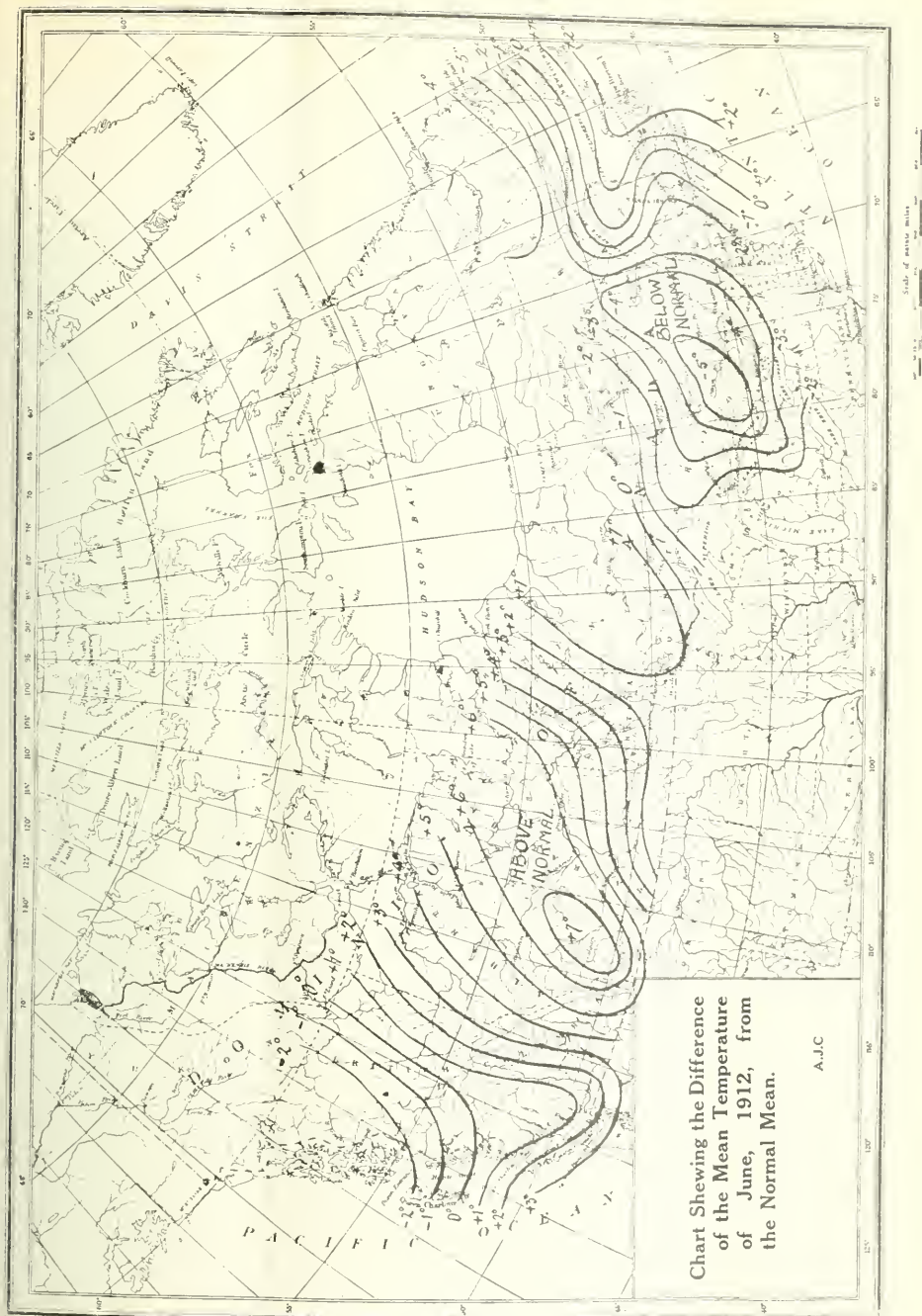
Rain fell on an average of twelve days, but there was a deficiency ranging between one and two inches, except locally in the Gulf and Lake St. John districts.

### THE MARITIME PROVINCES.

Over the greater part of the three Provinces there was less than the average rainfall, but at Sussex and Truro there was a very small excess registered. At Fredericton, a rainfall ending at six o'clock on the morning of the 1st, amounting to 4.70 inches, has been reckoned as part of the June rainfall. Leaving this out of the total, instead of a large excess there was a deficiency at this station comparable with that recorded elsewhere in the Province.

## ATMOSPHERIC PRESSURE.

Considering the telegraph reporting stations as exhibiting conditions representative of the districts in which they are situated, it appears that the mean barometric pressure for June was subnormal from Eastern Quebec to the Maritime Provinces, and also over Southern British Columbia; elsewhere in Canada the normal values were exceeded. The greatest differences from average, regardless of the sign, were noted in Cape Breton Island and the Western Provinces and were about 0.10 of an inch, negative in the former district, and positive in the latter region.



## HIGH AREAS.

Six areas were charted, of these three were first charted over the Pacific states, one over Northern British Columbia and two developed to the northward of Saskatchewan and Alberta. All the areas moved more or less southeastward. Three passed off the continent over the middle Atlantic states, two over the New England states and one across the Maritime Provinces. All were apparently absorbed by the high area over the South Atlantic Ocean.

## LOW AREAS.

Of the five areas charted three first appeared over British Columbia, one in Alberta and the other developed over Lake Michigan. All the areas moved across or to the northward of the Great Lakes. Four passed over the Gulf of St. Lawrence and Straits of Belle Isle and the other passed off the Nova Scotia Coast. Strong winds accompanied three areas in the Gulf of St. Lawrence, but no severe storms occurred.



## WINDS, JUNE, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
BRITISH COLUMBIA.							
Victoria .....	6334	454	31	1	7	14	SW.
Point Garry.....	6210	424	30	1	12	9	SE.
ALBERTA.							
Edmonton.....	4929	330	20	.....	2	8	SE.
Calgary.....	4859	396	24	.....	5	12	E. & N.
SASKATCHEWAN.							
Battleford.....	6934	542	57	1	6	10	SE.
Qu'Appelle.....	7653	421	27	.....	10	12	SE.
MANITOBA.							
Winnipeg .....	8837	567	36	4	11	12	E.
The Pas.....	5205	350	.....	.....	.....	.....	W.
ONTARIO.							
Port Arthur.....	6565	439	29	.....	8	12	NW.
Parry Sound .....	4810	491	21	.....	1	8	SW & W.
Southampton.....	6644	281	19	.....	1	16	SW.
Woodstock.....	4658	264	20	.....	1	8	NW.
Toronto.....	7095	400	32	1	13	8	W.
QUEBEC.							
Montreal .....	10802	540	.....	.....	.....	.....	SW.
Quebec.....	9014	442	.....	.....	.....	.....	SW.
Anticosti.....	9813	664	40	4	11	5	SE.
MARITIME PROVINCES.							
Fredericton.....	6530	435	25	.....	9	12	NW.
St. John.....	8957	520	32	1	14	8	S. to NW.
Point Lepreau.....	8383	548	39	4	12	9	SW.
Halifax.....	8174	576	38	3	14	10	NW.
Flat Point.....	9312	562	36	3	15	9	SW.
Charlottetown.....	5090	256	29	.....	3	10	SW.

## FREE AIR DATA.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat 43° 8' N., Long. 80° 47' W ) on June 6th, 1912.

Instrument—Dines Meteorograph.  
 Beginning of Ascent—1 a.m. G M T.  
 Barometer—737 mm.  
 Temperature = - 14.0° C.  
 Direction of Flight at Beginning—

Fell—330 km. distant, S. 83° E.  
 Maximum Height—13.10 km.  
 Minimum Temperature = - 62.0° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	737	14.0	
.5	718	14.0	11.5
1.0	672	10.5	8.0
1.38	642	7.0	5.5
1.48	636	7.0	4.5
1.50	634	7.0	4.0
2.0	595	3.5	0.0
2.2	580	2.0	-1.5
2.5	560	2.0	-3.0
3.0	526	-1.5	-4.5
3.5	492	-4.0	-6.0
4.0	462	-7.0	-9.0
4.5	433	-11.0	-14.0
5.0	405	-15.0	-17.5
5.5	378	-18.5	
6.0	354	-20.5	-21.5
6.5	330	-23.5	-25.0
7.0	308	-26.5	-27.5
7.5	288	-29.5	-31.5
8.0	268	-35.0	-36.5
8.5	250	-36.0	-38.0
9.0	232	-39.5	-41.0
9.5	216	-42.5	-45.0
10.0	200	-46.5	-50.0
11.0	172	-54.0	-57.5
11.4	160	-57.5	-61.0
11.85	149	-59.0	-62.0
12.0	145	-59.0	-62.0
12.75	130	-59.0	-61.0
13.10	123	-59.5	

June 6th, 1912.

High pressure conditions prevailed over the greater part of the continent, the highest pressure being off Bermuda.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1912.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.					Days with .01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.			
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.									
BRITISH COLUMBIA—																							
S. Vancouver Island																							
Alberni (Beaver Creek).....	49 15	124 49	300	59.7	+ 0.5	17	89.0	6-25	33.0	2	27.0	1.54	-0.67	0.49	7	25		3					
Clayoquot.....	49 11	125 55	27	55.4	+ 1.4	13	78.0		42.0	2-14	15.4	3.92	-0.22	1.53	7	23							
Cowichan (Tzouhalem).....	48 25	123 42	170	59.6		6	84.8	6	38.8	3	21.7	1.67		0.40	8	22							
Ladner.....	49 05	123 4		62.3	+ 3.5	12	83.0	18	48.0		26.15	2.05	+0.45	0.60	9	21							
Nanaimo.....	49 10	123 37	125	59.7	+ 2.5	12	83.3	6	40.9	25	18.5	1.57	-0.26	0.50	6	24		1					
Nanosee Bay.....	49 17	124 12	130			1						1.56		0.55	9	21							
Salt Spring Island.....	48 50	123 20		58.9		3	83.0	18	40.0	3-5	19.9	1.60		0.43	8	22		2					
Sooke.....	48 41	123 44	25	55.9		2	85.0	6	36.0	3	20.6	1.99		0.91	5	25							
Victoria.....	48 24	123 19	85	59.1	+ 3.0	20	85.9	6	41.2	3	19.2	0.99	+0.03	0.50	6	24		3					
N. Vancouver Island																							
Holberg.....	50 39	128 18		54.7		4	77.3	25	39.7	5	15.8	2.86		0.73	11	19							
Swanson Bay.....	50 37	126 53		54.8		4	75.0	50	39.0	1	14.3	3.05		0.95	12	18							
Triangle Island.....	50 52	129 5	680																				
Winter Harbour (Quatsino).....	50 32	127 40		56.0	+ 2.5	16	77.0	7	32.0	3	19.1	1.15	-4.43	0.21	11	19							
Lower Fraser River																							
Agnassiz.....	49 14	121 31	52	60.4	+ 1.1	20	89.0	24	35.0	3	26.4	5.95	+1.26	1.03	13	17							
Chilliwack.....	49 10	121 57	21	60.2	+ 0.2	12	91.0		6	35.0	3	22.2	2.23	-0.78	0.61	13	17		4				
Hope.....	49 23	121 25	500	61.6		3	97.5	18	36.0	3	27.5	1.67		0.49	8	22							
New Westminster.....	49 13	122 54	330	60.9	+ 2.5	24	90.0	18	46.2	3	20.7	2.81	-0.18	0.92	8	22		3					
North Nicomen.....	49 12	122 2	59	60.9	+ 1.6	20	89.0	18	38.0	3	21.5	2.53	-1.13	0.80	8	22							
Pemberton Hatchery.....	50 20	122 33		62.2		5	93.0	26	34.0	3	29.4	1.63		0.66	5	25		1					
Ruskin (Stave Falls).....	49 16	122 23	125	53.5		3	95.0	6	38.0		22.69	3.34		1.02	9	21							
Steveston (Garry Point).....	49 21	123 17		57.8	+ 1.2	17	82.0	19	36.0	3	18.1	1.49	-0.31	0.59	8	22		2					
Vancouver.....	49 17	123 5	136	60.5	+ 2.1	12	84.2	18	42.7	3	17.7	2.28	-0.48	0.91	9	21							
Upper Fraser River																							
Babine Lake.....	55 38	126 26																					
Barkerville.....	53 02	121 35	4180	51.6	+ 2.1	24	82.0	25	28.0	2-4	24.3	2.50	-1.01	0.76	8	22		1					
Chilcotin (Big Creek).....	51 40	123 0	3100	56.1		9	88.0	19	24.0	3	32.1	1.94		0.60	5	25		7					
Fort St. James (Stuarts Lake).....	54 28	124 12	2280	51.7	+ 0.9	19	80.5	17	23.5	5	28.8	1.12	-0.28	0.46	4	26		2					
Quesnelle.....	52 59	122 30	1700	59.3	+ 1.5	17	95.0	26	26.0	5	31.5	1.08	-0.57	0.52	5	25		3					
Okanagan Valley																							
Hedley.....	19 35	120 10	1771	64.8		7	100.9	24-25	37.0	2	28.2	1.25		0.23	9	21		3					
Hedley (Nickel Plate).....				50.3		7	80.0	23	25.0	4	22.3	4.15		0.95	9	21							
Kerriemore.....	49 12	119 48	1350																				
Okanagan Mission (Kelowna).....	49 15	119 29	1200	64.6	+ 3.4	14	92.0	25	38.0	6	25.7	1.42	+0.32	0.23	6	24		5					
Penticton.....	49 29	119 35		63.8		6	90.0	20	34.5	3	25.3	1.52		0.39	6	24							
Princeton.....	49 29	120 29	1650																				
Summerland.....	49 57	119 0	1100	65.5		5	96.0	25	42.0	2-3	24.1	1.60		0.68	5	25		3					
Vernon (Coldstream Ranch).....	50 14	119 15	1246	64.5	+ 4.0	19	96.0	24-25	34.0	3	28.1	1.32	-0.33	0.42	6	24							
West Kootenay																							
Crawford Bay.....				62.6		1	93.0	24	38.0	2	26.8	2.04		0.52	9	21		3					
Fruitvale.....	49 9	117 31		63.8		2	97.0	24	36.0	3	30.0	2.03		0.53	7	23		2					
Grand Forks.....	49 2	118 27																					
Greenwood.....				60.4		1	88.0	26	38.0	3	23.7	1.16		0.54	5	25							
Kaslo.....	49 52	117 0	1752	54.7																			
Nakusp.....	50 20	117 50	1413																				
Needles.....																							
Nelson.....	49 29	117 21	1760	64.5		10	100.0	24	38.0	3	27.6	2.26		0.49	8	22		1					
Rossland.....	49 5	117 48	3400	61.4		8	89.8	24	38.5	3	20.8	1.74		0.63	7	23		2					
East Kootenay																							
Akamia.....				62.9		8	96.0	24	28.0	5	37.1	1.65		0.85	5	25							
Crabbrook.....	49 30	115 50		64.7	+ 4.9	10	98.1	25	34.0	3	30.2	2.64	+0.05	1.19	9	21		5					
Tobacco Plains (Elko).....	50 34	116 14	2684	63.8		3	97.0	25	30.0	3	32.7	1.67		0.97	7	23		5					
Wilmer.....																							
Thompson River																							
Enderby.....	50 32	119 7	1180	66.4	+ 5.7	10	102.0	24	38.0	10	29.4	0.87	-1.13	0.24	5	25							
Kamloops.....	50 41	120 29	1245	67.3	+ 3.5	20	101.0	25	41.0	6	25.7	1.52	-0.24	0.77	7	23							
Nicola Lake.....	50 9	120 39	2120	60.5	+ 3.1	17	91.0	26	36.0	3-25	24.9	0.88	-0.42	0.33	6	24		4					
Salmon Arm.....	50 42	119 35	1152	65.5		10	97.0	25	35.0	3	29.1	0.87		0.27	9	21							
Salmon Arm (Exp. Farm).....				64.7		1	95.0	20-25	40.0	3-5	31.4	0.87		0.30	5	25							
Tranquille.....	50 41	120 29		66.8		4	101.0	25	40.0	3	27.0	0.70		0.17	7	23		1					
North Columbia River																							
Golden.....	51 16	116 55	2550	61.7	+ 4.9	11	94.0	24	29.0	6	32.4	1.79	-0.23	0.42	5	25		3					
Glacier.....	51 14	117 29	4072	56.6	+ 5.5	12	87.0	25	31.0	3	25.9	2.48	-0.31	0.82	8	22		2					
Revelstoke.....	51 0	118 6	1476	63.9	+ 5.5	13	95.0	24	36.0	3	29.5	2.29	-0.80	0.68	8	22		4					

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1912.

\*Stations not furnished with Registering Thermometers

STATION	Latitude N.		Longitude W.		Elevation above sea level, in feet.	TEMPERATURE							PRECIPITATION				Days with 0.1 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
	Mean.	Difference from average.	Yr's Observations.	Highest.		Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.								
BRITISH COLUMBIA—CON.																				
North Coast																				
Bella Coola	52 40	126 54	150	57.9	+ 0.7	14	85.0	7	30.0	5	26.1	0.61	-1.01	0.26	8	22				
Prince Rupert	54 18	130 18	170	52.6	—	2	68.0	5	38.0	4	13.2	4.09	—	1.19	16	14				
Stewart	56 1	130 1	215	54.1	—	2	78.0	30	34.0	3	21.8	1.50	—	0.28	9	21	1			
Queen Charlotte Islands																				
Reda Bay	52 17	131 7	5	56.3	—	4	70.0	2	51.0	19	6.6	2.05	—	0.80	4	26				
Masset	53 58	132 9	30	51.6	-2.0	12	83.0	18	48.0	26	15.0	1.92	-0.50	0.50	14	16				
Yukon Boundary																				
Atlin	59 35	133 38	2240	47.7	—	6	67.5	30	29.5	5	19.9	0.26	—	0.06	7	23				
YUKON—																				
Carcross	60 11	134 34	2171																	
Dawson	64 4	139 29	1200																	
ALBERTA—																				
N. Saskatchewan River																				
Daysland	55 52	112 17		59.4	—	1	90.0	25-26	26.0	5	26.9	0.75	—	0.21	12	18				
Edmonton	53 33	113 30	2158	61.9	+ 4.7	30	80.0	27	32.5	3	26.2	3.03	-0.38	0.66	12	18	1	4		
Endiang	52 0	112 0	2795	59.5	—	2	91.0	28	28.7	4	25.6	3.26	—	1.20	10	20				
Gilt Edge	52 59	110 43		61.2	—	3	92.0	25	32.0	3	25.0	3.73	—	1.16	11	19		2		
Halkirk (Ensbarg)	52 17	112 10		59.9	—	3	91.0	25	29.0	6	25.8	2.56	—	0.91	9	21		8		
Loveland	52 30	111 59		59.9	—	10	90.0	27	25.1	4	25.1	3.38	—	0.84	6	24				
Pakan (Victoria)	54 0	112 31		59.9	—	7	93.0	27	30.9	4	28.3	2.83	—	0.67	15	15				
Randley (Watsofield)	53 29	111 38	2000	61.3	—	8	89.0	22-27	32.0	5	29.5	—	—	—				8		
Wetaskiwin	52 58	113 23	2480	62.5	—															
The Red Deer River																				
Aliv	52 24	113 10		61.9	—	8	85.0	28	32.0	6	27.1	2.60	—	0.71	11	19		2		
Dolia	54 38	112 25		60.9	—					3	23.7	3.18	—	1.11	7	23				
Dudsbury	51 40	114 8		59.6	—	10	88.0	26	30.0	3-4	27.4	2.68	—	0.93	7	23				
Eckville	52 23	114 22	3300		—															
Harmattan	51 45	114 23		56.0	—	5	88.0	27	21.0	3	31.3	2.85	—	1.45	9	21		3		
Hildesheim	52 14	113 29	3500	59.9	—	8	88.0	26	30.0	1	25.9	3.30	—	1.70	11	1				
Lacombe	52 58	113 44	2806	59.2	—	5	89.6	26	25.5	3	28.9	3.00	—	1.04	9	21				
Oyen				2783																
Red Deer	52 16	113 49	2806																	
Threehills Creek	51 30	113 11																		
The Bow River																				
Berry Creek				56.1	—	—	96.0	27-28	22.0	15	35.5	2.14	—	1.00	5	25				
Brooks	50 34	111 54		61.9	—	1	96.0	26-28	29.0	10	44.8	—	—	—						
Calgary	51 2	114 12	3389	59.8	+ 7.2	28	90.0	26	29.0	6	27.9	4.31	+1.04	1.27	9	21		3		
Cardston	49 12	113 18																		
Furman (Playle Creek)																				
Gleichen	50 59	112 54	2652	61.2	—	9	91.0	26	31.5	6	27.0	1.23	—	0.53	4	26		1		
High River	50 35	113 53	3394	60.5	—	9	91.0	27	25.0	5	30.5	3.06	—	1.51	4	26		2		
Lacombe (Parkland)	50 15	113 26		57.9	—	5	89.0	25-26	26.0	1	36.6	2.43	—	0.38	7	23				
Lethbridge	49 42	112 51	2961	64.9	—	11	98.0	27	30.2	6	30.6	1.91	-1.16	0.70	9	21	1			
Lethbridge (Exp. Farm)	49 43	112 51		62.4	—	5	94.8	26	32.0	3	29.8	1.73	—	0.69	7	23				
Macleod	49 44	113 24	3128	63.8	+ 6.5	16	100.0	26	30.0	6	31.9	1.65	+0.68	0.64	5	25		2		
Medicine Hat	50 1	110 37	2161	68.0	+ 6.6	28	92.0	26	34.5	26	30.4	1.19	-2.22	0.84	4	26				
Pincher Creek	49 0	114 4	3750																	
Sundial	50 6	112 34		62.8	—	2	99.5	25	27.0	1	32.5	1.54	—	0.62	4	26				
Rocky Mountains																				
Banff	51 10	115 34	4542	55.9	+ 4.8	17	85.7	24	30.2	7	30.1	3.02	-0.17	1.68	14	16		1		
Blairmore	49 40	114 30	4225																	
Athabasca River																				
Athabasca Landing	54 43	113 17	1650	59.8	—	9	93.0	27	25.0	6	33.9	—	—	0.48	6	24		1		
Lumfroid	54 33	114 19		58.0	—	3	83.8	21	27.0	4-7	29.0	1.72	—	0.48	8	22		1		
Pembina	51 12	114 0																		
Peace River																				
Dunvegan	55 56	118 35	1305																	
Fort Vermilion	58 27	118 3		59.2	—	7	98.0	22	29.0	2	37.3	0.17	—	0.06	4	26		2		
Peace River Crossing	56 15	117 13		59.7	—	5	89.0	25	29.0	4	31.4	0.71	—	0.42	3	27				
Spirit River	55 40	118 47																		



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1912.

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STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.								PRECIPITATION.							
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	
MANITOBA—Continued																			
<i>Dunphry Lake and River</i>																			
Dauphin	51 8	100 2	957	52.9	—	6	95.0	28	36.0	6	22.8	2.03	—	0.55	7	23	..	..	
Moose (Horn Bay) Atkensville	51 15	99 33	..	60.9	—	3	89.0	25	36.0	6	20.2	1.47	—	0.43	6	24	1	3	
Berens River	52 18	97 23	710	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
<i>Lake Winnipegosis</i>																			
Swan River	52 6	101 15	1112	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
The Pas	53 49	101 15	860	61.5	—	—	92.0	27	34.0	2	24.2	1.22	—	0.55	6	24	..	..	
ONTARIO—																			
<i>The Lake Superior Districts</i>																			
<i>Rainy River</i>																			
Kenora	49 48	94 32	1102	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
<i>Thunder Bay</i>																			
Kakabeka Falls	48 29	89 26	912	56.3	—	3	92.0	24	29.0	7	32.5	1.05	—	0.46	9	21	1	1	
Port Arthur	48 27	89 12	944	57.0	+ 0.6	31	83.0	22	34.0	7	24.2	1.75	—	0.64	9	21	1	1	
Schreiber	48 50	87 15	633	55.0	— 2.3	13	81.2	29	28.2	7	29.5	1.33	— 24	0.52	8	22	1	6	
<i>Algoma</i>																			
Bruce Mines	46 18	83 55	595	57.8	— 1.4	14	86.0	25	33.0	7-13	26.9	1.15	— 2.00	0.39	8	22	..	1	
Copper Cliff	46 30	80 59	..	59.8	—	6	87.0	28	34.5	7	24.7	1.38	—	0.85	7	23	..	..	
Porcupine	48 29	81 15	..	57.0	—	—	91.5	24	28.0	4-8	29.2	—	—	—	3	27	..	..	
Providence Bay	45 40	82 14	..	54.0	—	2	80.0	29	32.0	7	25.6	2.00	—	1.10	..	..	1	..	
White River	48 35	85 16	1252	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
<i>Nipissing</i>																			
Cochrane	49 2	81 0	946	56.6	—	2	92.5	24	28.0	7	25.8	1.61	—	0.81	11	19	..	..	
Haileybury	47 29	79 39	637	59.3	— 2.7	19	88.0	23	32.6	7	21.5	2.49	— 9.0	0.44	13	17	2	5	
Montreal River	47 8	79 29	..	56.8	—	2	86.0	28	31.0	13	28.0	1.54	—	1.06	7	23	..	3	
<i>Upper Ottawa River</i>																			
Rathellen (Lake Talon)	46 15	74 48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Stoney (Rockcliffe)	46 9	78 6	557	57.5	— 5.2	34	88.0	24	30.0	7-9	28.5	2.21	— 1.16	0.66	8	22	..	2	
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																			
Almonte	45 12	76 12	390	60.6	—	1	87.0	24	35.0	8	26.0	1.17	—	0.39	9	21	1	1	
Bloomfield	43 59	77 21	260	59.5	—	15	82.0	29	39.0	8	20.9	0.88	—	0.40	5	25	..	..	
Kingston	44 13	76 29	285	58.6	— 4.2	37	80.3	29	38.4	8	17.7	0.07	— 2.13	0.34	8	22	..	2	
Montague	44 36	75 57	..	59.7	—	3	85.0	28	37.0	13	23.3	1.34	—	0.57	6	24	..	1	
North Gower	45 8	75 43	..	61.6	—	10	90.0	24-29	32.0	8	26.8	2.23	—	0.95	3	27	..	..	
Ottawa	45 26	75 42	294	60.9	— 4.2	29	84.0	24	39.0	7-8	29.0	1.25	— 2.50	0.44	9	21	..	3	
Renfrew	45 26	76 39	416	61.4	— 3.9	24	92.5	24	35.0	8	27.6	1.13	— 1.68	0.31	9	21	..	3	
<i>Georgian Bay Counties</i>																			
Barrie	44 23	79 41	839	56.6	—	32	83.8	16	36.4	8	22.6	1.46	—	0.61	7	23	..	1	
Beatrie	45 8	79 20	809	57.1	— 3.7	37	81.0	24	34.0	5-9	25.6	1.81	— 1.46	0.68	8	22	..	..	
Coldwater	44 38	80 40	690	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Collingwood	44 31	80 2	..	61.9	— 0.2	16	88.0	20	38.0	5	25.9	0.35	—	0.20	2	28	..	..	
Elora	43 41	80 24	1274	59.9	— 5.6	15	88.0	28	33.0	8	28.4	1.31	— 0.73	0.37	9	21	..	..	
Gravenhurst	44 54	79 20	..	57.1	— 5.8	41	84.0	24	30.0	8	28.0	1.95	— 1.49	0.72	4	26	1	1	
Huntsville	45 19	79 8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Midland	..	..	..	..	..	5	85.0	29	45.0	7	—	1.27	—	0.50	4	26	..	..	
Markdale	44 44	79 53	750	60.7	—	1	102.0	26	34.0	13	27.7	1.65	—	0.60	4	26	..	3	
Orillia	44 37	79 24	775	62.2	— 0.6	18	88.0	28	39.0	13	23.9	2.28	— 1.01	0.85	8	22	..	..	
Owen Sound	44 34	80 55	507	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Parry Sound	45 19	80 0	635	59.1	— 3.1	36	84.0	25	37.0	13	25.3	2.08	— 0.88	0.70	10	29	..	..	
Ronville	45 15	78 57	1038	55.9	—	5	82.0	24	32.0	4-7	27.8	2.32	—	0.60	10	20	..	..	
Shelburne	44 3	80 47	..	59.9	—	4	85.0	29	25.2	5-8	24.2	1.13	—	0.45	6	24	..	..	
Uxbridge	45 48	79 25	..	56.5	— 4.4	26	82.0	24	28.7	5-9	29.5	0.98	— 2.50	0.42	11	19	..	3	
<i>Lake Huron Counties</i>																			
Raman	43 2	81 55	600	61.8	— 3.1	27	85.5	28	35.0	8	21.1	1.44	— 1.97	0.43	6	24	..	6	
Clinton	43 32	81 37	..	59.5	—	10	85.0	29	34.0	8	22.6	1.47	—	0.72	6	24	..	2	
Goderich	43 45	81 41	..	60.1	— 3.2	22	85.0	22	38.0	8	20.3	1.43	—	0.77	6	24	..	2	
Lucan	43 56	81 30	908	57.6	— 6.0	25	84.0	28	33.0	8	25.6	2.55	— 0.05	1.46	4	26	1	3	
*North Bruce	44 23	81 25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
*Point Clark	44 5	81 44	595	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
*Sarnia	42 59	82 24	586	55.3	—	19	90.0	28	45.0	6	—	..	..	..	30	..	..	..	
Southampton	44 30	81 21	556	57.9	— 3.3	35	82.0	25	36.1	8	21.4	1.4	— 0.70	0.82	7	23	..	1	
<i>Lakes St. Clair &amp; Erie, Niagara Peninsula</i>																			
Chatham	42 23	82 12	595	55.6	— 0.7	30	92.0	29	38.0	8	24.8	1.67	— 0.95	0.65	5	25	..	..	
Cottam	42 7	82 45	606	62.6	— 5.0	30	92.0	29	34.0	7	29.3	1.45	— 1.11	0.65	3	27	..	2	
Grimsby	43 13	79 36	..	63.8	—	3	90.0	29	38.0	8	22.5	1.50	—	0.55	8	22	..	..	
Pelee Island	41 50	82 35	585	71.8	—	32	82.0	29	59.5	2	7.8	3.15	+ 1.43	1.56	4	25	..	..	
Port Burwell	42 39	80 55	652	60.4	—	9	83.0	29	35.0	8	19.5	2.08	—	0.71	6	24	..	1	
Port Dover	42 27	80 13	635	60.1	—	4.1	37	89.5	29	34.5	8	19.6	1.91	— 0.66	0.71	7	23	7	3
Port Stanley	42 40	81 13	592	60.5	— 4.1	37	88.2	29	34.0	8	20.9	1.34	— 1.37	0.40	9	21	..	5	
St. Catharines	43 9	79 17	347	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Stoney Creek	43 13	79 45	292	62.5	— 3.6	27	90.0	29	38.0	8	22.6	1.25	— 1.57	0.63	3	27	..	..	
Wallaceburg	42 35	82 24	..	63.5	—	3	92.0	29	37.0	7	23.2	1.56	—	0.40	5	25	..	..	
Welland	42 50	79 17	577	61.9	—	8	85.0	29	35.0	8	21.8	1.34	—	0.56	5	25	..	..	
Winham Centre	..	..	..	61.2	—	1	88.0	29	35.0	8	23.1	1.94	—	0.62	6	24	..	..	
Windsor	42 20	83 4	625	64.8	— 2.6	27	88.0	30	44.0	8	18.3	2.07	— 2.55	0.60	7	23	..	..	



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1905

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STATION				TEMPERATURE							PRECIPITATION						
	Latitude N.	Longitude W.	Elevation above sea level in feet.	Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Highest fall in month.	Days with 41 or more.	No. of days above 41°.	No. of thunder storms.
ONTARIO—Continued—																	
West-Central Counties																	
Alton.....	43 51	80 5	1250	61.2	— 3.1	30	90.0	28-29	35.0	7 24	1.0	— 1.14	0.53	4 26			
Brantford.....	43 10	80 21	750	61.0	— 5.0	34	85.0	28-29	35.0	8 22	1.7	— 1.72	0.52	4 26			
Guelph.....	43 33	80 16	1050	62.7	— 3.2	27	90.5	28	37.0	8 22	2.2	— 0.74	0.55	6 24			
London.....	42 59	81 13	818	62.7	— 3.2	27	90.5	28	37.0	8 22	2.2	— 0.74	0.55	6 24			
Paris.....	43 12	80 25	849	58.6	— 2.7	25	89.0	28	35.0	8 22	1.5	— 0.68	1.00	6 24			
Stratford.....	43 23	81 0	1191	55.6	— 4.6	47	86.0	29	37.5	8 22	1.5	— 0.24	1.21	7 23			
Woodstock.....	43 8	80 47	950	61.0	— 3.5	28	86.0	29	34.8	8 22	1.1	— 0.03	0.60	7 23			
Lake Ontario Counties																	
Agincourt.....	43 47	79 16	500	60.6	— 1.0	16	86.9	29	34.5	8 22	1.0	— 0.82	0.75	8 22			
Aurora.....	43 57	79 24	886	—	—	4	84.0	28	32.0	8 22	1.24	— 1.78	0.49	4 26			
Hamilton.....	43 16	79 54	303	—	—	—	—	—	—	—	—	—	—	—			
Lorne Park.....	43 43	79 13	—	—	—	—	—	—	—	—	—	—	—	—			
Toronto.....	43 40	79 24	350	62.2	— 2.4	72	88.7	29	37.0	8 21	1.75	— 1.64	0.67	10 20	4	2	
Toronto Is.(Lakeside Home)	43 40	79 24	—	58.5	—	—	—	24	39.0	8 18	1.8	—	—	—			
Uxbridge.....	44 5	79 5	885	60.0	—	—	—	28	33.0	8 21	1.84	— 1.55	—	9 21			
Wexford.....	43 44	79 17	555	58.3	—	1	83.0	29	34	8 21	1.84	—	0.73	8 22			
East-Central Counties																	
Bancroft.....	45 1	77 50	—	58.6	— 4.1	21	87.0	29	31.0	7 24	0.57	— 2.52	0.57	1 24			
Haliburton.....	45 1	78 28	1050	58.0	— 4.2	23	88.0	24	30.0	8 14	0.71	— 2.94	0.27	6 24			
Kinnow.....	44 45	78 38	920	56.7	— 6.1	13	81.0	24-28	39.0	6-9	30.6	0.74	— 0.97	0.26	6 24		
Lakeland.....	44 25	78 15	830	61.0	— 3.6	29	83.0	25	39.0	8 22	0.74	— 0.97	0.26	6 24			
Lindsay.....	44 20	78 45	872	61.0	— 2.6	32	86.4	28	35.0	8 22	1.10	— 2.15	0.35	9 21			
Madoc.....	44 30	77 29	575	60.1	— 3.0	8	85.0	28	36.0	19 22	1.12	— 0.32	8 21	1 1			
Peterboro.....	44 17	78 19	722	61.0	— 4.5	36	89.0	26	37.0	8 25	1.30	— 1.55	0.31	9 21			
Ursa.....	44 54	78 18	—	—	—	—	—	—	—	—	—	—	—	—			
QUEBEC—																	
Middle St. Lawrence																	
Brome.....	45 10	72 36	678	57.5	— 4.6	31	82.0	2	39.0	16 20	7.18	— 1.47	0.11	16 14			
Cap Rouge.....	46 46	71 18	—	59.2	— 2.2	81	87.0	26	35.2	10 18	4.01	— 1.13	15 15	15 15			
D'Israeli.....	45 55	71 21	806	55.1	— 5.82	0	—	25	25.0	14 17	8.16	— 0.00	9 21	9 21			
Montreal.....	45 30	73 35	187	61.2	— 2.9	37	83.2	25	39.4	1 17	1.05	— 2.77	0.47	13 17	1 2		
Quebec.....	46 48	71 13	796	57.2	— 4.0	37	83.2	25	34.2	10 17	1.30	— 1.41	0.11	15 15	2 3		
Ste Anne de Bellevue.....	45 27	73 59	—	60.9	— 1.0	85	85.0	27	37.2	10 21	1.40	— 0.25	2 18	2 18			
Shawinigan Falls.....	46 34	72 43	—	54.4	— 9.83	0	—	25	27.0	10 28	2.10	— 0.72	3 18	4			
Sherbrooke.....	45 32	72 5	620	57.6	— 9.84	8	85.0	26	31.4	1 21	2.10	— 1.76	15 15	15 15			
Lower St. Lawrence & Gulf																	
*Anticosti, E. Pt.....	49 6	61 42	30	48.2	+ 0.3	29	75.0	24	39.0	1	—	1.79	— 0.71	3 27			
*Anticosti, W. Pt.....	49 52	64 32	30	47.0	— 3.7	30	65.0	25	40.0	10	—	2.79	+ 0.55	15 15			
*Bicquet.....	48 25	68 33	—	56.6	— 3.0	32	0	23	29.0	10	—	2.25	— 0.94	6 23			
*Cape Chateau.....	49 6	66 45	—	49.5	— 4.5	28	67.0	20	40.0	6-9	—	2.11	— 3.22	6 29	5 25		
*Cape Magdalen.....	49 16	65 20	93	52.3	— 1.9	30	72.0	20	40.0	1-13	—	1.77	— 5.52	0 59	8 22		
Father Point.....	48 31	68 19	20	52.1	— 0.5	34	73.0	24	34.0	15 15	2.44	— 0.73	0 36	19 11	2 2		
Lake St. John																	
Chicoutimi.....	48 25	71 5	150	55.2	— 4.6	2	88.0	23-30	26.0	—	—	3.46	— 0.05	0 80	12 18	1 1	
Chicoutimi (2).....	—	—	—	54.7	— 3.82	3	82.3	24	28.5	6 22	1.10	— 1.30	16 14	16 14			
Lake Edward.....	47 39	72 15	1333	—	—	—	—	—	—	—	—	—	—	—			
La Tuque.....	47 27	72 48	520	—	—	—	—	24	29.0	10	—	0.82	—	1 30	9 21	1	
Mistassini.....	48 54	72 15	390	53.5	— 1.88	0	—	24	28.0	6 20	4.35	— 1.35	14 16	2 5 4			
*Roberval.....	48 31	72 13	352	—	—	—	—	—	—	—	—	—	—	—			
The Northwestern Districts																	
Abitibi.....	48 33	79 22	—	56.6	— 1.5	16	82.0	23-25	31.0	13	5.0	— 0.32	1 28	1 28			
Anaouan Crossing.....	—	—	—	52.7	— 1.83	0	—	24	29.0	10 24	2.30	— 0.92	11 16	11 16			
Weymontachague.....	47 54	73 40	—	50.6	— 1.85	3	—	24	22.5	14 20	5.73	— 1.10	15 15	4 2			
White Shore Lake.....	48 12	75 43	—	—	—	—	—	—	—	—	—	—	—	—			
The North Shore																	
Clarke City.....	50 10	66 25	—	51.3	— 79.0	24	31.0	8 17	—	—	—	—	—	75 12 15	1 2		
NEW BRUNSWICK—																	
Chatham.....	47 3	65 29	21	58.8	— 1.0	37	83.0	25	37.0	10	—	2.24	— 0.79	0 49	12 18		
Dalhousie.....	48 4	66 22	39	55.6	— 1.0	38	81.0	23-24	34.0	13 17	—	2.28	— 0.34	4 26	12 18		
Fredericton.....	45 57	66 36	164	58.2	— 2.2	33	90.0	27	27.0	8 22	—	2.80	— 0.75	0 87	5 21		
Moncton.....	46 9	64 45	30	57.7	— 0.4	15	90.0	25	34.0	11 24	—	2.81	— 0.75	0 87	5 21		
*Point Lepreau.....	45 4	66 28	30	51.5	— 4.2	30	83.0	25	28.0	11	—	2.11	— 1.14	8 21	12 18		
St. John.....	45 17	66 4	40	55.6	— 0.3	39	76.3	24	20.8	8 27	—	2.11	— 0.1	1 22	5 21		
St. Stephen.....	45 11	67 16	35	57.9	— 1.7	15	91.0	25	36.0	10	—	2.11	— 0.1	1 22	5 21		
Sussex.....	45 38	65 38	96	58.0	— 0.1	12	85.0	23	33.0	10	—	2.11	— 0.1	1 22	5 21		

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1912.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION			Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average				
NOVA SCOTIA—																	
Antigonish.....	45 38	61 59	50	57.7	—	2	90.0	5	30.0	12	36.0	—	—	—	—	—	—
Halifax.....	44 39	63 36	88	58.3	+ 0.7	37	87.1	4	37.8	16	21.8	2.57	-1.33	0.66	14	16	—
Kentville.....	45 3	—	40	56.9	—	1	86.0	25	36.0	11-15	21.2	1.74	—	0.98	5	25	—
New Germany.....	45 38	64 19	40	58.3	—	1	92.0	25	34.0	16	27.4	1.60	—	0.58	5	25	—
Parrsboro'.....	45 23	64 19	40	54.2	-1.6	16	74.0	24	31.0	10	29.3	—	—	—	—	—	—
Port Hastings.....	45 39	61 22	45	57.6	+ 0.2	21	83.0	23	34.0	1	20.2	1.90	—	0.65	4	26	—
*Sable Island, E. Pt.	43 58	59 46	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sydney.....	46 10	60 10	35	56.8	+ 2.1	38	86.0	4	33.0	13	20.5	1.45	-1.37	0.60	6	24	—
Truro.....	45 22	63 18	77	57.0	-0.8	39	82.3	25	35.0	10	22.2	3.51	+0.19	1.30	14	16	—
*Whitehead.....	45 15	61 8	20	59.1	+ 0.5	28	63.0	25	43.0	12	—	2.33	-1.26	0.70	4	26	—
Windsor.....	44 59	64 6	90	58.6	—	9	84.0	5	39.0	8-16	20.6	2.44	—	0.48	12	18	—
Wolfville.....	45 7	64 20	—	59.1	+ 0.8	13	84.0	4-25	38.5	11	20.0	1.86	—	0.73	6	24	—
Yarmouth.....	43 50	66 2	65	54.7	-0.6	31	73.0	25	38.1	15	14.1	1.52	-1.71	0.59	11	19	—
P. E. ISLAND—																	
Charlottetown.....	46 14	63 10	38	58.1	+ 0.1	36	84.0	24	37.0	11	17.0	2.37	-0.27	1.30	8	22	—
Charlottetown (Exp. Farm)	46 14	63 7	75	57.8	—	2	84.5	24-25	36.0	11	18.3	3.49	—	1.16	12	18	—
Hamilton.....	46 25	63 48	—	57.1	+ 0.9	15	86.0	26	40.0	10	17.9	0.91	-1.87	0.73	2	28	—
NEWFOUNDLAND—																	
*Amour Point.....	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burin.....	47 0	55 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Cape Norman.....	51 38	55 52	30	40.9	—	28	59.0	26	33.0	11-18	—	2.34	+0.03	1.00	8	22	—
Fogo.....	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Point Riche.....	50 42	57 25	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port aux Basques.....	47 35	59 10	27	47.8	—	4	67.5	4	34.5	9	12.8	2.90	—	0.76	13	17	—
St. John's.....	47 34	52 42	125	53.3	+ 3.6	39	84.0	5	35.0	17	19.8	2.19	-1.70	1.00	15	15	—
LABRADOR—																	
North West River.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BERMUDA—																	
Prospect.....	32 17	64 46	151	75.1	+ 0.3	21	87.2	26	60.0	11	10.8	2.98	-2.20	0.70	14	16	—

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c. DURING JUNE, 1912.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS.
	Amount in inches.	No of Days or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....	1.64	8	22	0.84	26					
Amnis (Canoe Point).....	1.91	7	23	0.73	26					
Armstrong.....	1.92	7	23	0.93	13					
Akamina.....										
Beaver Lake.....	1.22	6	24	0.41	20					
Barriere Valley (Louis Cr.).....	1.31	6	24	0.42	12					
Cocquitham.....	2.39	6	25	1.34	11					
Donnan's Island.....	1.04	6	24	0.34	20					
Ferguson.....	1.87	7	23	0.38	12					
Goldstream Lake.....	1.88	9	21	0.61	20					
Hydraulic.....	1.16	6	24	0.40	27					
Horaby Island.....	1.07	4	26	0.55	21					
Jordan River.....	2.91	12	18	0.85	12					
Jordan River (Bear Creek).....										
Little Qualicum (French Creek, V.I.).....	1.20	6	24	0.31	18					
Monte Creek.....	0.74	8	22	0.32	14					
Nass Harbour.....	5.89	8	22	1.12	19					
Skidegate.....										
Shawnigan Lake.....	1.53	9	21	0.35	21					
Wycliffe.....	1.66	5	25	0.70	12					
ALBERTA—										
Bardo.....	3.09	7	23	1.29	30					
Bismark.....	2.89	6	24	1.23	15					
Bruderheim.....										
Bittern Lake.....		9	21	0.77	28					
Brooks.....	1.94	6	24	1.26	30					
Campsie.....	1.88	10	20	0.41	30					
Caldwell.....	2.02	7	23	1.11	30					
Dorenele.....	2.63	9	21	0.60	30					
Danstable.....	2.32	12	18	0.71	30					
Grassy Lake.....	0.60	3	27	0.30	15					
Jumping Pound.....	4.52	7	23	1.78	15					
Lacombe.....										
Loch Sloy.....										
Lyndon.....	2.81	3	27	2.11	15					
Lincham.....	4.15	3	27	2.80	16					
La Pearl.....	1.01	4	26	0.55	14					
Macleod.....	3.22	3	27	1.87	30					
Mayercroft.....	2.95	8	22	1.76	15					
Nateby.....										
Nanton.....	3.88	5	25	1.93	15					
Okotoks.....	3.68	3	27	2.46	14					
Pekisko.....	4.88	9	21	3.46	15					
Ponoka.....	2.93	7	23	0.90	30					
Priddis.....	3.25	6	24	1.60	15					
Sion.....	2.88	15	15	0.82	14					
Seven Persons.....	0.89	3	27	0.74	15					
Tilley.....										
SASKATCHEWAN—										
Aberfeldy.....	2.28	7	23	1.63	23					
Gull Lake.....	2.25	3	27	2.00	14					
Gull Lake (Fka. Swift Cr.).....										
Last Mountain.....	2.04	7	23	0.65	9					
Maple Creek.....	3.02	8	22	1.56	15					
Melnow Lake.....	1.60	5	25	0.94	15					
Nashlyn (Kelvinburg).....										
Willow Creek (Battle Cr.).....	2.47	4	26	1.97	15					
MANITOBA—										
Cartwright.....	0.49	6	24	0.14	13					
Deloraine.....	0.59	4	26	0.20	14					
Gretna.....										
Norquay (Swan Lake).....	0.61	7	23	0.30	11					
Rapid City.....	0.31	2	28	0.22	2					
Rose Bank.....	0.31	2	28	0.24	10					
ONTARIO—										
Deer Park.....	1.50	5	25	0.68	15					
Dutton.....	0.71	5	25	0.21	1					
Emsdale.....	1.91	11	19	0.54	6					
Fort Frances.....	0.94	9	21	0.34	11					
Georgetown.....	1.24	6	24	0.51	15					
Gronham.....	1.21	6	24	0.56	3					
Grand Valley.....	1.87	8	22	0.63	6					
Indian Chutes (Elk Lake).....	2.14	9	21	0.69	25					
MacCoe.....	1.37	6	24	0.33	6					
Sydenham.....	1.65	2	28	0.90	14					
Strathroy.....	2.27	8	22	0.85	16					
Watford.....	2.08	8	22	0.56	19					
Westport.....	2.38	5	25	0.73	20					
Westminster.....	1.30	4	26	0.61	16					
Wooler.....	1.81	7	23	0.92	16					
Wesley.....	1.30	8	22	0.48	3					
Wattenwyl.....	2.58	10	20	1.38	16					
Watson.....	2.40	5	25	1.20	13					
QUEBEC—										
Lucerne.....	1.00	3	27	0.50	18					
Perkins Mills.....	1.88	7	23	0.65	6					
Quinze Dam.....	2.83	10	20	0.50	16					
Timiskaming.....	2.51	9	21	0.58	5					
NEW BRUNSWICK—										
Point Escomine.....	1.03	6	24	0.54	16					
NOVA SCOTIA—										
Big Mushamash Lake (Ma- bone).....	1.80	1	29	1.80	17					
Kentville.....	1.74	5	25	0.98	13					
Kedgemoakoo Lake (New Grafton).....										
Milton.....	1.61	4	26	0.61	7					
Mushamash River (Mahone).....	1.80	1	29	1.80	17					
New Germany.....										
South Afton.....	2.81	10	20	0.80	15					
White Rock.....	1.11	6	24	0.42	7					

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF JUNE, 1912.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND			
				Mean reduced.	Highest.	Lowest.	Range.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.	
BRITISH COLUMBIA—																								
Athol	59 35	133 38	2240	30 01	30 42	29 57	0 85	7	2	0	0	0	1	9	32	6	2	5	5	60	8.0	20.0	20 S	
Barkerville	53 23	121 35	4180	29 57	30 35	29 53	0 84	68	5	5	0	0	3	1	1	0	18	2	0	40	60	4.7	24.0	—
Kamloops	50 42	120 29	1245	29 87	30 32	29 46	0 86	88	5	6	3	1	9	0	0	5	19	9	7	90	2.3	15.0	1 S W	
oNanaimo	49 10	123 37	125	29 92	30 25	29 56	0 69	78	4	5	0	3	1	9	0	0	1	23	23	63	7.1	20.0	—	
Prince Rupert	54 18	130 18	170	30 03	30 37	29 59	0 78	77	9	19	1	0	0	4	13	4	5	0	33	60	1.8	6.0	—	
Triangle Island	50 52	129 5	680																					
oTsanquile	49 11	120 29		28 58	28 92	28 20	0 72	61	1	0	1	3	0	0	3	18	2	33	60	1.9	8.0	20 W		
Vancouver	49 17	123 5	136	30 01	30 35	29 69	0 66	74	4	5	1	1	10	0	5	0	8	9	8	15	60	3.3	12.0	5 W
Victoria	48 24	123 19	85	30 02	30 36	29 66	0 70	68	5	1	1	0	4	1	8	29	5	1	11	60	9.2	28.0	1 S W	
YUKON—																								
Dawson	64 4	130 20	1200																					
ALBERTA—																								
Banff	51 10	115 34	4542	29 93	30 35	29 45	0 90	5	2	1	5	4	0	0	12	7	0	31	60					
Calgary	51 2	111 2	1432	29 84	30 35	29 38	0 97	5	1	4	7	0	16	3	1	1	23	5	60					
Edmonton	54 33	113 30	2158	29 89	30 40	29 30	1 02	5	1	8	11	4	0	0	8	9	0	13	4	60				
Medicine Hat	50 1	110 37	2161	29 85	30 39	29 37	1 02	5	2	2	3	2	3	3	7	24	10	4	6	60				
SASKATCHEWAN—																								
Battleford	52 41	108 20	1620	29 92	30 44	29 46	0 98	65	77	6	2	3	23	6	6	10	14	20	90					
Moose Jaw	51 21	105 35	1759	29 90	30 46	29 45	1 01	77		8	5	15	12	6	5	12	12	21	90					
oPrince Albert	50 10	106 0		29 95	30 43	29 51	0 92	64		4	4	5	14	9	3	8	12	1	60					
Qu'Appelle	50 30	103 47	2115	29 96	30 52	29 49	1 03	72		8	2	6	5	29	6	16	5	7	87					
Swift Current	50 20	107 45	2439	29 96	30 52	29 49	1 03	72		8	2	6	5	29	6	16	5	7	87					
MANITOBA—																								
oAweme (St. Alban's)	49 42	99 33	1150																					
Minneapolis	50 15	99 50	1629	29 88	30 45	29 45	0 97	64	4	3	2	5	4	4	4	0	1	14	26	60				
The Pas	53 49	101 15	809	29 88	30 22	29 08	1 14	64	4	2	15	4	2	5	10	1	14	7	2	90				
Winnipeg	49 53	97 7	769	29 99	30 41	29 47	0 94	64	4	2	11	4	2	11	11	0	10	8	3	60				
ONTARIO—																								
Cochrane	49 2	81 0	946	29 76	30 12	29 37	1 05				13	5	2	2	2	10	21	3	2	60				
Haileybury	47 22	79 39	687	29 95	30 39	29 46	0 93				7	3	0	1	4	18	9	8	10	60	2.0	3.5	—	
Kingston	44 13	76 29	285	30 01	30 34	29 72	0 62				1	8	1	5	3	29	8	4	1	60				
London	42 59	81 13	808	30 01	30 48	29 59	0 81	3	2	1	30	10	30	0	0	5	0	90						
Ottawa	45 26	75 42	294	29 97	30 43	29 63	0 78				1	2	5	3	7	16	24	0	0	60				
Parry Sound	45 19	80 0	635	30 00	30 35	29 55	0 83				3	3	1	7	6	15	22	3	0	60				
Port Arthur	48 27	89 12	644	30 00	30 35	29 38	0 97	4	3	5	8	7	3	3	4	10	13	7	60					
Port Stanley	42 40	81 13	592	30 04	30 16	29 60	0 56	4	4	0	2	12	5	0	3	14	7	17	60					
Southampton	44 30	81 21	656	30 02	30 44	29 51	0 93	4	2	5	5	2	6	3	17	11	4	10	2	60				
Stonehill	46 9	78 6	557	29 94	30 31	29 55	0 76				0	0	5	0	0	1	16	4	34	60				
Toronto	43 40	79 24	359	30 01	30 40	29 27	1 13				7	5	8	1	4	6	16	7	6	60				
White River	48 35	85 16	1252																					
Woodstock	43 8	80 47	980	30 02	30 44	29 59	0 85	69	6	3	6	3	11	5	5	19	22	19	0	90				
QUEBEC—																								
Quebec Point	48 31	68 19	20	29 83	30 10	29 45	0 65	8	10	3	1	9	0	2	4	37	2	2	60					
Montreal	45 30	73 35	187	29 94	30 25	29 59	0 66	4	5	3	2	1	2	9	26	7	9	0	60					
Quebec	46 48	71 13	236	29 89	30 21	29 52	0 69	6	8	1	8	0	1	0	28	12	8	1	60					
NEW BRUNSWICK—																								
Chatham	47 3	65 29	21	29 87	30 20	29 45	0 75	70	5	1	1	1	9	1	2	10	23	13	0	60				
Fredericton	45 57	66 36	164	29 89	30 20	29 52	0 68	70	5	2	0	4	4	8	7	17	24	25	1	60	9.8	21.7	N W	
St. John	45 17	66 4	70	29 91	30 19	29 51	0 68	70	5	6	0	1	2	5	24	5	2	13	1	60				
NOVA SCOTIA—																								
Halifax	44 39	63 36	88	29 90	30 22	29 53	0 69				8	9	0	3	4	5	15	16	0	60				
Sydney	46 10	60 10	35	29 87	30 17	29 38	0 79	7	14	9	3	3	4	1	2	15	13	3	60					
oWolfville	45 7	64 20		29 81	30 12	29 46	0 66				3	3	4	1	4	8	24	13	0	60				
Yarmouth	43 50	66 2	65	29 93	30 22	29 55	0 67				6	2	0	1	14	14	9	12	2	60				
P. E. ISLAND																								
Charlottetown	46 14	63 10	38	29 88	30 21	29 50	0 71				6	1	0	4	9	17	3	12	8	60				
NEWFOUNDLAND																								
Burns	47 0	55 10	27	29 87	30 16	29 30	0 80				3	1	20	1	2	5	20	7	1	60				
Fogo	49 43	54 17	30								3	1	20	1	2	5	20	7	1	60				
Port aux Basques	47 35	59 10	125	29 87	30 16	29 30	0 80				3	1	20	1	2	5	20	7	1	60				
St. John's	47 34	52 42	125	29 75	30 16	29 01	1 12	5	5	3	5	4	4	3	11	20	10	0	60					
REEMUDA																								
Prospect	52 17	64 46	151	30 17	30 32	29 89	0 43				4	5	1	1	16	6	22	4	1	60				

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF JUNE, 1912

STATION	DIRECTION OF WIND FROM									Total number of Observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	1	1	2	0	7	2	12	4	0	29
Didsbury.....	2	2	5	6	4	0	6	6	0	31
Halkirk (Emsburg).....	1	11	7	16	6	3	5	10	0	59
Hillsdown.....	0	2	0	11	12	3	0	26	6	60
Loveland.....	0	9	4	13	3	13	3	15	0	60
Macleod.....	2	0	3	2	10	1	16	1	6	41
Pakan (Victoria).....	6	6	1	0	7	16	9	7	8	60
Ranfurly (Waitefield).....	8	1	12	10	10	1	22	10	16	90
SASKATCHEWAN—										
Chaplin.....	0	1	0	13	0	3	0	13	0	30
Crescent Lake.....	0	3	1	1	6	3	8	6	2	30
Estevan.....	2	2	3	4	7	3	5	1	3	30
Grenfell (Brownhill).....	0	2	1	14	0	17	0	16	0	60
Indian Head.....	14	14	4	7	18	11	4	14	4	90
Larchmount (Glenbryan).....	0	5	16	16	4	1	15	3	0	60
Moosomin.....	0	0	12	0	9	0	4	5	0	30
Muenster (St. Peter's Monastery).....	0	14	0	8	0	19	2	17	0	60
Onion Lake.....										
Pense (Gatesgarth).....	0	2	1	11	2	3	0	11	0	30
Waseca.....	0	2	2	9	2	5	5	5	0	30
MANITOBA—										
Berens River.....										
Brandon.....	1	15	6	7	5	26	10	16	4	90
Hillview.....	4	9	6	6	17	24	3	21	0	90
Moose Horn Bay (Aitkensville).....	8	10	4	5	9	7	3	6	8	60
Morden.....	6	2	1	5	11	7	10	11	7	60
Oak Bank.....	19	0	2	1	5	10	7	10	6	60
Stony Mountain.....										
ONTARIO—										
Agincourt.....	1	2	9	2	9	32	16	18	0	90
Alton.....										
Beatrice.....	8	0	0	5	6	8	4	17	42	90
Biram.....	12	5	13	5	8	2	9	4	2	60
Clinton.....	3	2	8	2	4	14	8	19	0	60
Cottam.....	19	0	8	1	18	0	14	0	0	60
Gravenhurst.....										
Lindsay.....										
North Bruce.....	0	0	7	2	33	11	29	8	0	90
Orillia.....	0	0	0	5	6	9	6	4	0	30
Owen Sound.....										
Point Clark.....	14	2	1	5	25	4	5	4	0	60
Port Dover.....	5	2	4	2	3	7	4	3	0	30
Scarboro Junction.....										
Stoney Creek.....	0	24	2	0	4	24	35	1	0	90
Uplands.....	9	0	4	0	8	0	25	1	13	60
Wexford.....	0	0	5	0	3	10	2	8	2	30
QUEBEC—										
Abitibi.....	22	1	3	1	13	7	38	5	0	90
Anticosti, W. Pt.....	12	5	5	0	28	2	14	24	0	90
Anticosti, Heath Point.....	6	9	7	0	2	18	19	18	11	90
Bicquet.....	1	8	0	1	3	35	22	20	0	90
Brome.....	11	2	4	1	10	13	39	7	3	90
Cape Chatte.....	2	1	9	0	0	3	51	2	22	90
Cape Magdalen.....	0	1	3	1	19	2	1	45	18	90
Cap Rouge.....	5	4	0	0	0	1	0	20	0	30
Chicoutimi.....	0	21	0	9	0	27	0	33	0	90
Clarke City.....	2	7	11	0	7	2	0	1	0	30
NEW BRUNSWICK—										
Dalhousie.....	0	0	12	1	0	0	15	0	2	30
Moncton.....	0	1	0	6	3	9	2	9	0	30
Pt. Lepreaux.....	2	4	7	1	2	14	23	22	0	75
Sussex.....	1	1	0	0	0	1	3	6	18	30
NOVA SCOTIA—										
Kentville.....	3	1	1	1	3	3	18	0	0	30
Parrsboro.....										
Port Hastings.....	0	5	0	5	4	10	0	6	0	30
Sable Island, E. Pt.....	0	1	0	4	0	62	0	23	0	90
Truro.....										
Whitehead.....	10	3	3	3	14	48	3	6	0	90



MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
JUNE, 1912.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Non.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria			.19	.45	.53	.59	.69	.72	.72	.67	.60	.55	.53	.47	.43	.32		
Salmon Arm			.37	.69	.71	.75	.75	.71	.75	.70	.71	.73	.71	.69	.66	.54	.18	
Nanaimo		.01	.02	.19	.39	.39	.42	.42	.55	.55	.59	.61	.57	.53	.55	.28		
Vancouver		.09	.39	.44	.47	.53	.57	.66	.67	.63	.63	.61	.60	.58	.48	.27	.03	
Agassiz				.25	.47	.60	.61	.60	.58	.61	.57	.53	.38	.42	.33	.15		
Tranquille			.15	.38	.50	.61	.61	.61	.66	.65	.67	.66	.61	.57	.47	.36	.02	
Summerland		.20	.59	.64	.65	.68	.70	.71	.72	.72	.74	.75	.71	.71	.41			
Kamloops		.15	.43	.56	.63	.69	.65	.67	.68	.69	.70	.68	.64	.63	.57	.41	.15	
Edmonton		.27	.47	.68	.69	.76	.79	.84	.86	.80	.83	.80	.74	.62	.59	.54	.17	
Lethbridge		.22	.72	.78	.80	.83	.85	.87	.85	.77	.73	.71	.70	.67	.61	.49	.17	
Lacombe		.14	.54	.66	.72	.78	.84	.78	.75	.77	.73	.68	.60	.52	.44	.23		
Medicine Hat		.17	.58	.79	.87	.83	.78	.76	.82	.35	.83	.80	.79	.74	.72	.52	.14	
Fort Dunvegan		.07	.47	.60	.69	.66	.72	.74	.75	.70	.68	.61	.52	.53	.49	.40	.09	
Fort Vermilion		.07	.32	.62	.71	.71	.75	.80	.71	.69	.67	.72	.76	.76	.67	.48	.17	.01
Battleford	.01	.45	.54	.80	.85	.90	.93	.94	.73	.87	.88	.88	.87	.84	.82	.76	.45	.02
Indian Head		.01	.33	.55	.66	.61	.72	.77	.82	.89	.80	.80	.76	.74	.59	.24	.02	
Moosejaw		.34	.62	.71	.70	.76	.79	.80	.78	.84	.83	.79	.76	.73	.74	.63	.18	
Scott		.38	.61	.77	.73	.72	.70	.73	.74	.78	.83	.87	.78	.79	.78	.66	.53	.06
Rosethorn		.30	.60	.87	.85	.90	.91	.90	.91	.87	.86	.81	.80	.79	.75	.68	.34	
Brandon		.01	.18	.56	.78	.77	.76	.78	.76	.76	.64	.60	.59	.56	.40	.09		
Winnipeg		.03	.37	.61	.65	.68	.72	.77	.78	.79	.69	.80	.76	.73	.65	.61	.34	.05
Haileybury		.15	.46	.56	.60	.62	.69	.63	.65	.67	.67	.65	.61	.55	.56	.48	.03	
Woodstock			.23	.56	.64	.69	.71	.73	.75	.78	.81	.79	.73	.77	.77	.41	.02	
Lindsay				.33	.62	.72	.79	.78	.82	.75	.80	.83	.84	.24	.58			
Barrie			.47	.69	.77	.72	.79	.83	.81	.80	.84	.76	.77	.77	.66	.30	.05	
Toronto		.03	.40	.53	.63	.69	.71	.72	.72	.73	.76	.74	.75	.77	.67	.54	.06	
Kingston		.08	.36	.68	.67	.76	.77	.77	.69	.69	.70	.79	.68	.65	.60	.34	.01	
Ottawa		.07	.50	.67	.74	.77	.73	.69	.75	.75	.90	.76	.81	.80	.75	.58	.11	
Montreal		.07	.46	.58	.60	.64	.70	.74	.75	.73	.74	.71	.71	.70	.58	.28		
Cap Rouge		.01	.26	.51	.50	.57	.58	.64	.60	.56	.48	.53	.56	.54	.43	.26	.01	
Quebec			.24	.39	.47	.53	.60	.62	.63	.58	.51	.52	.55	.47	.42	.24	.02	
Sherbrooke		.07	.25	.46	.52	.56	.69	.68	.73	.70	.72	.70	.68	.65	.58	.46	.11	
Fredericton		.02	.30	.63	.60	.75	.69	.67	.67	.66	.65	.66	.65	.53	.51	.39	.08	
Charlottetown		.10	.42	.56	.58	.64	.61	.65	.66	.65	.73	.63	.64	.51	.35	.21		

	Victoria	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summerland	Kamloops.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Port Dunvegan.	Port Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosethorn.	Brandon.	Winnipeg.	Haileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sherbrooke.	Fredericton.	Charlottetown.
Registered duration in hours.....	225	230	182	220	187	237	289	270	313	323	301	330	261	289	373	277	330	344	361	224	280	257	232	258	301	284	276	308	270	211	204	257	254	238
Percentage of possible duration %.....	46	60	38	47	39	48	60	55	62	66	60	68	50	54	74	57	68	69	72	49	58	56	61	56	65	62	60	66	63	45	43	55	54	51
Difference from average %.....	+1	-	-	-	+6	-	-	-	-	-	-	-	-	-	+27	+15	-	-	-	+5	+6	+1	+5	+3	+16	+6	-	+16	+13	-	-	+8	-	-
Maximum percentage in one day %.....	87	88	78	93	78	85	89	14	90	96	92	93	81	79	97	85	94	96	95	78	87	88	91	76	88	92	88	91	98	85	84	92	91	92
Date of maximum.....	6	7	7	6	5	7	4	6	18	6	7	7	5	6	22	7	6	7	7	6	6	9	13	3	30	13	13	13	9	11	11	9	8	4
Number of days completely clouded.....	3	3	6	3	9	4	2	6	2	1	2	2	3	4	1	3	2	0	0	3	2	1	0	1	1	2	0	1	0	4	5	3	2	4



*Thunder Recorded—*

1. Dunstable, Alix, Waitefield, Brantford, Haliburton, White Shore Lake, Sion, Fort Qu'Appelle, Rathmullen, Hydraulic.
2. Wesley, Jumping Pound, Dunstable, Point Clark, Madoc, Paris, Renfrew, Lucknow, Port Dover, Morden, Oakbank, Father Point, Winnipeg, Port Stanley, Goderich, Aitkensville, Birnam, Gravenhurst, Brome, Chicoutimi, Mistassini, Chicoutimi West, Port Burwell, La Tugue, Chaplin, Pambrum, Rathmullen, Stonecliffe, Peace River Crossing.
3. Wesley, Quinze Dam, Point Clark, Markdale, Clinton, Haliburton, Lucknow, Birnam, Mistassini, Pt. Lepreau, Sussex, Chatham, N.B., Aitkensville, Gravenhurst, Truro.
4. Daysland, Chicoutimi, Mistassini, Chicoutimi West, Chaplin, Quebec, Aitkensville, Haileybury.
5. Waitefield, Montague, Crescent Lake, Southampton.
6. Birnam.
- 7.
8. Bardo, Pakan, Waitefield, Uplands, Renfrew, Chicoutimi, Lake Edward, Chicoutimi West, Lunnford, Sion, Pambrum, Ottawa, Stonecliffe, Quebec, Crawford Bay.
9. Daysland, Waitefield, Chaplin, Pambrum, Rathmullen, Saskatoon, Fruitlands.
10. Brome, Lake Edward, Montreal, Alberni.
- 11.
12. Lunnford, Fruitlands, Fort St. James.
13. Campsie, Jumping Pound, Okotoks, High River, Daysland, Halkirk, Hillsdown, Pakan, Waitefield, Lunnford, Sion, Divide, Pambrum, Rathmullen, Saskatoon, Hydraulic, Wilmer, Salmon Arm, Quesnel, Okanagan Mission, New Westminster, Chilcotin, Keremeos.
14. Dunstable, Okotoks, High River, Waitefield, Alberni.
15. Georgetown, Wattenwyl, Dunstable, Agincourt, Montreal River, Brantford, Paris, Clinton, Bruce Mines, Lucknow, Sion, Birnam, Providence Bay, Port Dover, Toronto, Port Stanley, Goderich, Uplands.
16. Westport, Georgetown, Deer Park, Wooler, Campsie, Agincourt, Madoc, Haliburton, Renfrew, Chicoutimi, Mistassini, Lake Edward, Sion, Toronto, Ottawa, Father Point, Quebec, Kingston, Port Stanley, Uplands, Haileybury, London.
17. White Rock, Fort St. James.
18. Deloraine, Cartwright, Little Qualicum.
19. Deer Park, Birnam, Aweme, Hydraulic, Monte Creek, Alkali Lake, Stewart, Salt Spring Island, Fort St. James, Quesnel, Pemberton Hatchery, New Westminster, Chilliwack, Chilcotin, Alberni, Haileybury.
20. Westport, Westminster, Agincourt, Montague, North Gower, Paris, Lucknow, Birnam, Port Dover, Almonte, Brome, Mistassini, Princeton, B.C., Chagoneess (Star City), Toronto, Ottawa, Montreal, Port Stanley, Hydraulic, Alkali Lake, Summerland, Salmon Arm, Rossland, Quesnel, Okanagan Mission, New Westminster, Hope, Chilliwack, Chilcotin.
21. White Rock, Okotoks, Windsor, N.S., Moncton, Sion, Port Stanley, Golden, Truro, Wolfville.
22. Caldwell, Pekisko, Jumping Pound, Dunstable, Daysland, Athabasca Landing, Alix, Hillsdown, Pakan, Waitefield, Lunnford, Sion, Aberfeldy, Rathmullen, Wilmer.
23. Dunstable, Harmattan, Waitefield, Lunnford, Sion, Aberfeldy, Muenster, Saskatoon, Yellow Grass.
24. Cartwright, Halkirk, Waitefield, Ninette, Almasippi, Treherne, Aweme, Virden, Sion, Chaplin, Pense, Muenster, Garry Point, Priddis.
25. Campsie, Maycroft, Jumping Pound, Nanton, Halkirk, Waitefield, Montreal River, Schreiber, North Gower, Brome, Okanagan Mission, New Westminster, Hope, Grand Forks, Glacier, Creston, Chilliwack, Chilcotin, Keremeos, Haileybury, White Shore Lake, Abitibi, Princeton, B.C., Lunnford, Sion, Maple Creek, Melfort, Rathmullen, Saskatoon, Hydraulic, Canoe Point (Annis), Ferguson, Nakusp, Wilner, Fruitlands, Salt Spring Island, Summerland, Salmon Arm, Rossland.

26. Lethbridge, Gleichen, Halkirk, Harmattan, Waitefield, Montreal River, Princeton, B.C., Sion, Chaplin, Prince, Saskatoon, Chatham, N.B. Monte Creek, Canoe Point (Annis), Nakusp, Wilner, Fruitlands, Summerland, Salmon Arm, Okanagan Mission, Nelson, Grand Forks, Golden, Glacier, Chilliwack, Crawford Bay, Keremeos, Peace River Crossing.
27. Brooks, Caldwell, Campsie, Pekisko, Jumping Pound, Dunstable, Okotoks, Nanton, Halkirk, Waitefield, Macleod, Rathmullen, Yellow Grass, Monte Creek, Ferguson, Nakusp, Wilner, Crawford Bay, Chilcotin, Lunnford, Sion, Maple Creek, Willow Creek, Meadow Lake, Aberfeldy, Chaplin, Crescent Lake, Pambrum, Melfort, Muenster.
28. Cartwright, Bittern Lake, Jumping Pound, Daysland, Halkirk, Harmattan, Paken, Waitefield, Treherne, Aweme, Lunnford, Sion, Willow Creek, Chaplin, Divide, Pambrum, Okanagan Mission, Golden, Chilcotin.
29. Halkirk, Waitefield, Kakabeka Falls, Almasippi, Princeton, B.C., Macleod, Maple Creek, Chaplin, Pense, Pambrum, Melfort, Muenster, Rathmullen, Saskatoon, Port Arthur, Hope, Chilliwack, Chilcotin.
30. Ninga, Chaplin, Pense, Chagoness (Star City), Pambrum, Melfort, Muenster, Yellow Grass, Fruitlands, Keremeos.

*Auroras Recorded—*

1. Chicoutimi.
2. Edmonton III.
- 3.
- 4.
5. Sion, Pambrum II.
6. Cartwright IV, Sion, Pambrum II, Gravenhurst IV.
7. Schreiber III, Lucknow IV, Port Dover, Almonte, Estevan II, Quebec IV, Salt Spring Island, Madoc III, Haileybury I.
8. Aitkensville II, Mistassini III, Quebec IV, Montreal II, Port Arthur II, Haileybury III.
9. Mistassini IV.
- 10.
11. White Shore Lake IV.
- 12.
13. White Shore Lake IV.
- 14.
- 15.
- 16.
- 17.
- 18.
19. White Shore Lake IV.
20. White Shore Lake IV.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.

## FORECASTS FOR JUNE 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1222. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	74	60	11	3	88.5
Saskatchewan.....	72	60	10	2	90.3
Manitoba.....	73	61	9	3	89.7
Lake Superior.....	110	89	17	4	88.6
Lower Lake Region.....	116	106	9	1	95.3
Georgian Bay.....	116	94	17	5	88.4
Ottawa Valley.....	99	74	19	6	84.3
Upper St. Lawrence.....	98	78	16	4	87.7
Lower St. Lawrence.....	115	92	15	8	86.5
Gulf.....	117	89	23	5	85.9
Maritime Provinces West.....	116	87	23	6	84.9
Maritime Provinces East.....	116	87	25	4	85.8
Total.....	1222	977	194	51	87.9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
July 26, 1912.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

JULY, 1912

No. 7

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

On Vancouver Island and at the mouth of the Fraser the normal temperature was exceeded by about 1°, but elsewhere the monthly mean was less than the normal, the departure ranging as high as 4° in the Kootenays. In the southern interior 90° was exceeded on the 19th, 30th, and 31st.

### THE WESTERN PROVINCES.

Throughout Alberta and Saskatchewan the mean temperature was from 3° to 5° below the normal, and at Athabasca Landing 6° below. In Manitoba the deficiency was not so great, ranging between 0.5° and 2°. The first day was very hot, maxima exceeding 90° throughout the provinces, and exceeding 100° at a few points in Manitoba. On the 15th, 16th and 17th, minima were recorded lower than 40°.

### ONTARIO.

In this province the differences from normal mean temperature were very irregular, both positive and negative departures occurring in all districts. The average of 42 stations showed a negative difference of one-half of a degree for the whole province. From the 8th to the 11th, temperatures ranged well above 90°, and at a few places exceeded 100°.

### QUÉBEC.

At Montreal, Quebec and Chicoutimi, the mean temperature exceeded the normal by about 2°, but elsewhere in the province there was a negative difference, amounting to 4° at Abitibi, and from 1° to 4° in the Lower St. Lawrence and the Gulf counties. From the 4th to the 10th there was a period of very warm weather.

## MARITIME PROVINCES.

Differences from average temperatures were in most instances less than 1°. From the 7th to the 10th, maxima ranging between 90° and 98° were registered, except at Yarmouth in the extreme southwest of Nova Scotia, where the highest temperature of the month was 78°.

## PRECIPITATION.

## BRITISH COLUMBIA.

On the Queen Charlotte Islands, the northern portion of Vancouver Island, and on the northern coast, the precipitation was a little less than usual, but elsewhere there was an excess over the normal amount, which ranged between 20 and 50 per cent. In the southern interior rain fell frequently, especially in the Kootenays, where showery days numbered from 12 to 19.

## THE WESTERN PROVINCES.

In nearly all districts of the western provinces there was an excess over the normal precipitation. This excess was greatest in Manitoba, ranging between 2 and 4 inches. At Brandon, where the normal fall for July is about 2 inches, the actual depth measured was 6.5 inches. At Winnipeg the normal amount is 3.3 inches, but 6.1 were recorded. In Saskatchewan there were also instances of heavy precipitation, as at Battleford and Prince Albert, where double the usual amount was recorded, but large excesses were not of general occurrence in Saskatchewan and Alberta, while there were local deficiencies near the International boundary. The rainfall was, however, in all cases well distributed throughout the month.

## ONTARIO.

More than the usual amount of rain was recorded in the Rainy River and Nipissing Districts, the southern counties bordering on the Georgian Bay, the east-central counties of the Peninsula, and the Lakes St. Clair and Erie counties. Less than usual was registered in Algoma and Thunder Bay Districts, the northern counties bordering on the Georgian Bay, the counties on the Upper St. Lawrence and the Lower Ottawa and the Niagara Peninsula.

## QUEBEC.

Along the Middle St. Lawrence there was a large deficiency, ranging between 25 and 40 per cent. of the normal. In the counties of the Lower St. Lawrence and the Gulf, however, there was an equal excess.

## THE MARITIME PROVINCES.

At Yarmouth and Point Lepreaux there was a very small deficiency, and at Sydney one of 30 per cent., but elsewhere in these provinces there was an excess which was, in most instances, large.

## ATMOSPHERIC PRESSURE.

The values of the mean atmospheric pressure at the telegraphic reporting stations in Canada were generally in excess of the average, but in the interior of British Columbia and over the greater part of the Maritime Provinces did not reach the normal. Positive departures of 0.10 of an inch were noted in Alberta, but the difference was in most districts 0.05 of an inch. In Prince Edward Island the mean value was in defect by about 0.07 of an inch, and in the interior of British Columbia it was about 0.03 of an inch.



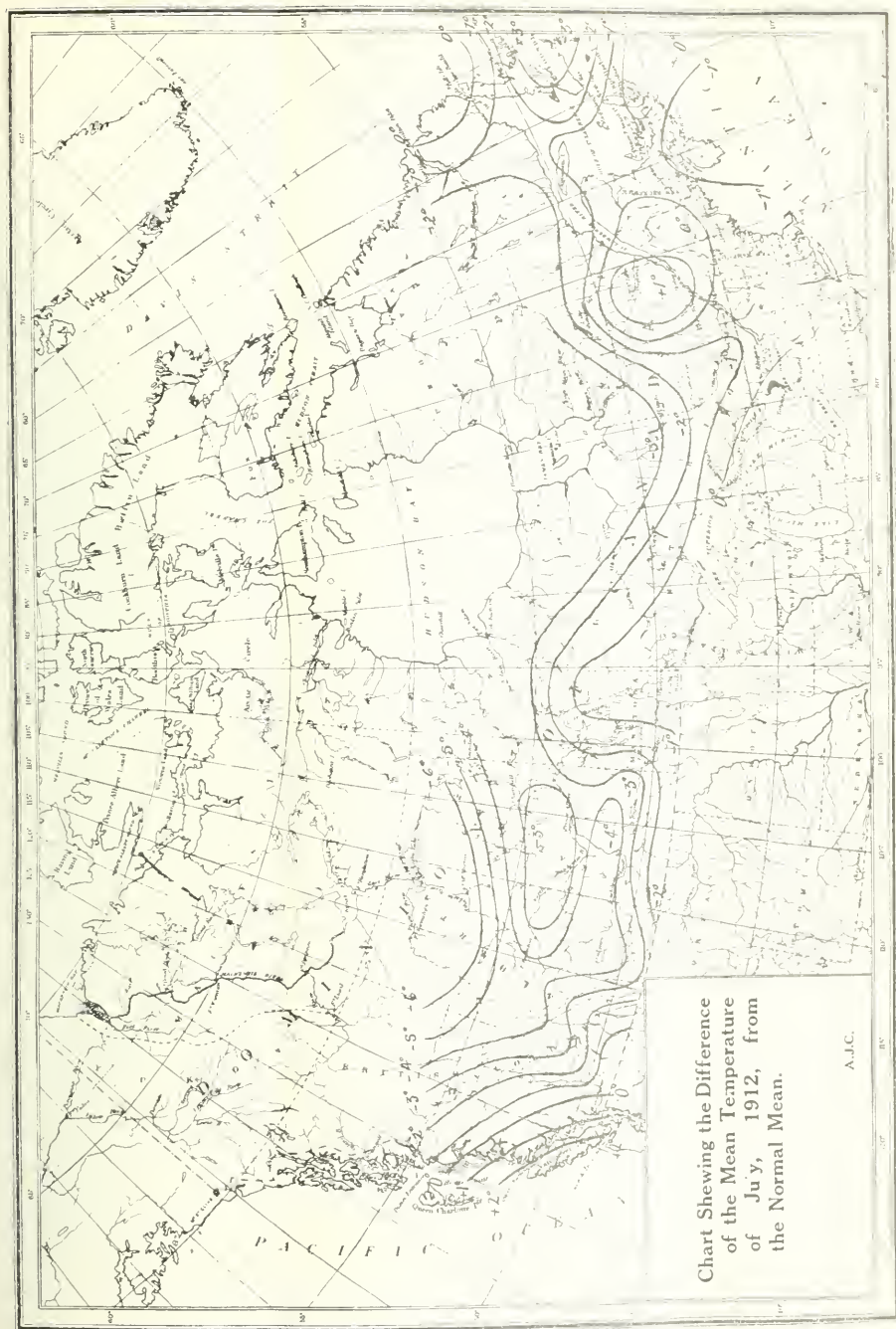


Chart Shewing the Difference  
of the Mean Temperature  
of July, 1912, from  
the Normal Mean.

A.J.C.

## HIGH AREAS.

Six areas of high pressure were charted. Two entered the continent over southern British Columbia, while the others were first charted in the northern part of the same province. All passed across or near the Great Lakes. Three moved off the Middle Atlantic coast; two passed over the Gulf of St. Lawrence and Newfoundland; while the remaining one, which was not of great importance, dispersed to the northward of the Ottawa Valley.

## LOW AREAS.

Six areas were charted. Two, apparently, moved down from Yukon, one of which was accompanied by a subsidiary development over the Western States. Three first appeared to the northward of Alberta, and one developed in the Southwest States. Four of the areas passed across or near to the Maritime Provinces, but only one was accompanied by a moderate gale. Of the remaining two, one dispersed over the St. Lawrence Valley, while the other passed off the Middle Atlantic coast, and was absorbed by another of greater energy.

## FREE AIR DATA.

During the series of ascents from the 1st to 5th July, an area of high pressure lay off the Middle Atlantic coast, with low pressure conditions west of the Mississippi and in Canada north of the 49th parallel. Weather during this period was unusually hot over Ontario.

Ascent on the 1st July—Balloon not found.

## FREE AIR DATA.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 58' N., Long. 80° 47' W.) on July 2nd, 1912.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—741 mm.

Temperature—14°C.

Direction of flight at beginning—West.

Fell—48 km. distant, 5 W.

Maximum Height—13,600.

Minimum Temperature—65 C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degree	
G.L. 0.3	741	14	
4.0	470	3.5	-0.5
4.5	441	-0.5	-3.5
5.0	413	4.0	-7.5
5.5	389	-7.5	-11.5
6.0	362	12.5	-16.5
6.5	341	16.0	-19.0
7.0	318	19.0	-22.0
7.5	297	-23.0	-24.5
8.0	277	26.0	-28.0
8.5	258	30.0	-31.5
9.0	240	-33.5	-35.5
9.5	224	36.5	-40.0
10.0	208	-40.0	-44.0
11.0	178	48.0	-51.5
12.0	153	-54.5	-56.5
12.5	141	58.0	-61.5
13.0	130	63.0	-65.0
13.6	119		-64.0

\* The record up to 4 km. was obliterated on the chart.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat 43° 8' N., Long. 80° 47' W ) on July 3rd, 1912.

Instrument Dines Meteorograph.

Fell= 86 km. distant, N. 5° W.

Beginning of Ascent 1 a.m. G. M. T.

Maximum Height—17.2 km.

Barometer 741 mm.

Minimum Temperature = - 66.0 C.

Temperature 24.5 C.

Direction of Flight at Beginning—Northeast.

Height in km. above S. L.	Pressure in mm.	Temperature in Centigrade degrees.	
G. L.	741	24.5	
5	722	19.0	
1.0	680	16.0	
1.5	641	13.0	
2.0	603	10.5	
2.5	569	8.0	
3.0	534	6.0	
3.5	502	4.0	
4.0	471	2.0	
4.5	442	-1.0	
5.0	416	-3.5	
5.5	389	-7.0	
6.0	366	-9.5	
6.5	342	-12.0	-13.0
7.0	321	-15.5	-17.5
7.5	300	-19.0	-21.5
8.0	281	-22.5	-25.0
8.5	262	-26.0	-30.0
9.0	244	-30.0	-34.0
9.5	227	-34.5	-38.0
10.0	211	-37.5	-42.0
11.0	182	-45.0	-47.5
11.4	172	-47.0	-49.0
12.0	156	-51.5	
13.0	133	-59.0	
14.0	114	-64.5	
14.4	106	-66.0	
15.0	96.5	-66.0	
16.0	82.0	-65.0	
17.0	69.8	-64.0	
17.2	68.0	-64.0	

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on 4th July, 1912.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—737 mm.

Temperature = 23.0° C.

Direction of flight at Beginning—North by east.

Fell—142 km. distant N.E.

Maximum Height—12.2 km.

Minimum Temperature —55.0° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	737	23.0	
.5	719	25.0	22.5
1.0	678	24.0	20.0
1.5	639	21.0	17.0
2.0	601	18.0	14.0
2.5	568	15.0	10.5
3.0	534	11.5	7.5
3.5	502	8.0	4.0
4.0	472	4.5	0.5
4.5	444	1.0	2.0
5.0	417	2.0	5.5
5.5	390	5.0	— 9.0
6.0	365	7.5	12.0
6.5	343	—11.0	15.0
7.0	320	—15.0	18.0
7.5	300	—18.5	—20.5
8.0	280	—21.5	21.0
8.5	262	—24.0	28.0
9.0	244	—27.5	31.0
9.5	228	32.0	34.0
10.0	212	—36.0	39.0
11.0	182	—45.0	46.5
12.0	156	—52.5	—53.0
12.2	152	55.0	

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on 5th July, 1912.

Instrument—Dines Meteorograph.  
 Beginning of Ascent—1 a.m. G.M.T.  
 Barometer—735 mm.  
 Temperature—24.0 C.  
 Direction of Flight at Beginning—East.

Feil—60 km. distant, S. 70° E.  
 Maximum Height—16.4 km.  
 Minimum Temperature—-65° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. 3	735	24.0	
.5	717	23.0	
1.0	675	20.0	
1.5	636	16.5	
2.0	600	13.0	
2.3	580	11.5	
2.5	564	11.5	10.0
3.0	532	10.0	6.5
3.5	500	5.0	2.0
4.0	469	0.5	-3.0
4.5	440	-3.5	-6.0
4.6	433	-4.0	-6.5
5.0	411	-6.0	-7.0
5.5	387	-7.0	
6.0	362	-10.5	
6.5	338	-14.0	
7.0	317	-18.0	
7.5	297	-22.0	
8.0	277	-25.5	
8.5	258	-29.0	
9.0	240	-33.0	
9.5	222	-37.0	
10.0	208	-41.5	
11.0	179	-49.0	-50.5
12.0	153	-55.5	-58.0
12.6	138	-60.0	-61.5
13.0	130	-63.5	
13.9	113	-65.0	
14.0	111	-65.0	
15.0	960	-63.0	
16.0	798	-63.0	
16.4	750	-63.0	



## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N, Long. 80° 47' W) on 6th July, 1912.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—738 mm.

Temperature=24.0°C.

Direction of flight at Beginning—Straight up.

Fell 45 km. distant, N. 45° W.

Maximum Height= 18.8 km.

Minimum Temperature = -65° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	738	24.0	
.5	720	25.0	
1.0	679	20.5	16.0
1.5	640	18.0	16.0
2.0	602	16.0	14.0
2.5	568	12.0	10.5
3.0	532	8.5	6.5
3.5	501	5.5	3.5
4.0	471	1.5	0.0
4.5	442	-2.5	-3.5
5.0	416	-5.5	-6.0
5.5	389	-8.0	
6.0	364	11.5	
6.5	341	-14.5	
7.0	319	-18.0	
7.5	299	-20.5	
7.6	294	-21.5	
8.0	279	-23.5	-24.0
8.5	260	-26.5	-28.0
9.0	242	-29.0	-30.5
9.5	227	-32.5	-34.0
10.0	210	-37.0	-38.5
10.3	202	-39.0	-41.5
11.0	181	-45.5	-46.5
11.5	168	50.0	
12.0	155	-53.0	
13.0	133	58.0	
14.1	112	-61.5	
15.0	96	-64.0	
15.7	87	-65.0	
16.0	81.4	65.0	
17.0	69.2	64.5	
18.0	58.9	-62.0	
18.8	52.0	-60.0	

## WINDS, JULY, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
BRITISH COLUMBIA.							
Victoria .....	5337	425					SW.
Point Garry .....							
ALBERTA.							
Edmonton ...	3742	237	16				NW.
Calgary .....	4228	495	27		3	3	NW.
SASKATCHEWAN.							
Battleford ..							
Qu'Appella ..	6933	331	24		4	7	NW.
MANITOBA.							
Winnipeg .....	7338	400	30	1	11	7	S.E.
The Pas .....							
ONTARIO.							
Port Arthur ..	5834	427	39	2	4	7	NW.
Parry Sound ..	4062	283	18			3	W.
Southampton ..	4154	346	24		5	6	N.
Woodstock ..	4048	208	23		1	3	SW.
Toronto .....	6083	318	31	3	12	7	N. & NE.
QUEBEC.							
Montreal .....	5541	418	25		10	9	SW.
Quebec .....	7797	416	37	1	10	12	NE.
Anticosti .....	7985	670	44	2	9	11	S.E.
MARITIME PROVINCES.							
Fredericton ..	4295	259	23		1	11	NW.
St. John .....	6758	502	35	1	5	5	SW.
Halifax .....	6964	599	40	2	4	12	W.
Flat Point .....	7637	386	41	2	13	5	SW.
Charlottetown ..	3631	358	26		4		SW.
Point Escumac ..	9714	797	37	4	10	8	NE.

## TEMPERATURE AND PRECIPITATION AT STATIONS

\*Stations not furnished with thermograph.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE					PRECIPITATION				
				Mean.	Difference from average.	Yes Observations.	Highest.	Days.	Lowest.	Days.	Maximum.	Minimum.	Amount (inches).
BRITISH COLUMBIA—													
S. Vancouver Island													
Alberni (Beaver Creek)	49 15	124 49	390	65.5	+ 4.7	17	85.5	18	41	1	85.5	37.5	20.0
Clayoquot	49 11	125 55	27	58.5	+ 3.1	17	85.5	17	45	1	85.5	37.5	20.0
Cowichan (Tzouhalem)	48 55	123 42	170	65.4	—	17	85.5	17	44	1	85.5	37.5	20.0
Ladner	49 05	123 4	61	61.2	+ 2.3	17	85.5	17	43	1	85.5	37.5	20.0
Nanaimo	49 10	123 37	125	62.2	+ 3.4	17	85.5	17	42	1	85.5	37.5	20.0
Nanose Bay	49 17	124 12	133	61.1	+ 2.2	17	85.5	17	41	1	85.5	37.5	20.0
Salt Spring Island	48 50	123 29	25	62.3	—	17	85.5	17	40	1	85.5	37.5	20.0
Sooke	48 41	123 44	25	59.6	+ 1.1	17	85.5	17	39	1	85.5	37.5	20.0
Victoria	48 24	123 19	5	61.9	+ 1.1	20	85.5	17	38	1	85.5	37.5	20.0
N. Vancouver Island													
Holberg	50 39	128 18	—	50.7	—	1	85.5	17	37	1	85.5	37.5	20.0
Swanson Bay	50 37	126 53	—	50.2	—	1	85.5	17	47	1	85.5	37.5	20.0
Triangle Island	50 52	129 5	680	59.7	+ 1.1	17	85.5	17	41	1	85.5	37.5	20.0
Winter Harbour Quatsino	50 32	127 4	—	59.6	+ 1.1	17	85.5	17	42	1	85.5	37.5	20.0
Lower Fraser River													
Agassiz	49 14	121 40	52	61.2	—	1	85.5	17	38	1	85.5	37.5	20.0
Chilliwack	49 10	121 57	21	64.4	+ 3.2	17	85.5	17	46	1	85.5	37.5	20.0
Hope	49 23	121 25	500	64.1	+ 2.9	17	85.5	17	45	1	85.5	37.5	20.0
New Westminster	49 18	122 54	340	64.1	+ 3.0	17	85.5	17	47	1	85.5	37.5	20.0
North Newcom	49 12	122 32	50	64.1	+ 3.0	17	85.5	17	47	1	85.5	37.5	20.0
Pemberton Hatchery	50 20	122 33	—	64.5	+ 3.3	17	85.5	17	48	1	85.5	37.5	20.0
Ruskin (Stave Falls)	49 16	122 23	125	60.6	+ 1.9	17	85.5	17	48	1	85.5	37.5	20.0
Steveston (Garry Point)	49 21	123 17	—	60.5	+ 1.8	17	85.5	17	42	1	85.5	37.5	20.0
Vancouver	49 17	123 5	136	62.6	+ 3.9	17	85.5	17	47	1	85.5	37.5	20.0
Upper Fraser River													
Babine Lake	55 38	126 20	—	—	—	—	—	—	—	—	—	—	—
Barkerville	53 02	121 35	4180	52.5	+ 2.4	17	85.5	17	37	1	85.5	37.5	20.0
Chilfitin (Big Creek)	51 40	123 0	3190	57.4	+ 2.8	17	85.5	17	38	1	85.5	37.5	20.0
Fort St. James (Stuarts Lake)	54 28	124 02	2280	55.1	+ 1.0	17	85.5	17	40	1	85.5	37.5	20.0
Quesnelle	52 59	122 39	1706	61.0	+ 1.7	17	85.5	17	41	1	85.5	37.5	20.0
Okanagan Valley													
Hedley	49 35	120 19	1771	66.8	+ 7.0	17	85.5	17	41	1	85.5	37.5	20.0
Hedley (Nickel Plate)	49 35	120 19	1771	66.8	+ 7.0	17	85.5	17	41	1	85.5	37.5	20.0
Okanagan Mission (Kelowna)	49 15	119 29	1290	65.0	+ 7.0	17	85.5	17	41	1	85.5	37.5	20.0
Penticton	49 29	119 35	—	64.5	+ 6.5	17	85.5	17	41	1	85.5	37.5	20.0
Princeton	49 29	120 29	1650	62.1	+ 3.0	17	85.5	17	40	1	85.5	37.5	20.0
Summerland	49 57	119 0	1109	66.1	+ 8.0	17	85.5	17	48	1	85.5	37.5	20.0
Vernon Coldstream Ranch	50 14	119 15	1246	64.2	+ 2.3	17	85.5	17	45	1	85.5	37.5	20.0
West Kootenay													
Crawford Bay	49 9	117 31	—	61.5	+ 1.8	17	85.5	17	41	1	85.5	37.5	20.0
Fruitvale	49 9	117 31	—	61.5	+ 1.8	17	85.5	17	41	1	85.5	37.5	20.0
Grand Forks	49 2	118 27	—	65.4	+ 5.9	17	85.5	17	42	1	85.5	37.5	20.0
Greenwood	49 29	118 35	—	61.0	+ 1.5	17	85.5	17	41	1	85.5	37.5	20.0
Kaslo	49 52	117 6	1752	58.7	+ 7.0	17	85.5	17	41	1	85.5	37.5	20.0
Nesley	49 52	117 6	1752	58.7	+ 7.0	17	85.5	17	41	1	85.5	37.5	20.0
Nelson	49 29	117 21	1769	62.0	+ 4.2	17	85.5	17	42	1	85.5	37.5	20.0
Rossland	49 5	117 48	3400	60.3	+ 8.0	17	85.5	17	43	1	85.5	37.5	20.0
East Kootenay													
Akamina	49 4	115 59	—	60.0	+ 4.0	17	85.5	17	41	1	85.5	37.5	20.0
Cranbrook	49 4	115 59	—	60.0	+ 4.0	17	85.5	17	41	1	85.5	37.5	20.0
Tobacco Plains (Elko)	49 1	115 5	2654	62.1	+ 1.1	17	85.5	17	41	1	85.5	37.5	20.0
Wilmer	50 34	116 14	—	58.1	+ 8.0	17	85.5	17	41	1	85.5	37.5	20.0
Thompson River													
Boswell	50 32	119 7	1180	65.7	+ 6.1	17	85.5	17	41	1	85.5	37.5	20.0
Enderby	50 41	120 29	1245	66.2	+ 5.5	17	85.5	17	41	1	85.5	37.5	20.0
Kamloops	50 9	120 39	2120	60.4	+ 2.1	17	85.5	17	41	1	85.5	37.5	20.0
Nicola Lake	50 42	119 35	1152	63.3	+ 7.0	17	85.5	17	41	1	85.5	37.5	20.0
Salmon Arm	50 41	120 29	—	62.8	+ 8.0	17	85.5	17	41	1	85.5	37.5	20.0
Salmon Arm (Exp. Farm)	50 41	120 29	—	65.1	+ 4.0	17	85.5	17	41	1	85.5	37.5	20.0
Tranquille	50 41	120 29	—	65.1	+ 4.0	17	85.5	17	41	1	85.5	37.5	20.0
North Columbia River													
Golden	51 16	115 56	2559	—	—	1	85.5	17	41	1	85.5	37.5	20.0
Glacier	51 14	117 29	4072	44.2	+ 1.2	8	—	—	—	—	—	—	—
Revelstoke	51 0	118 6	1476	62.2	+ 0.7	12	8	—	—	—	—	—	—



## \* Stations not furnished with R.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1912.

\* Stations not furnished with Registering Thermometers

STATION	Latitude.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.										
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auras.	No. of thunderstorms.	No. of fogs.	
MANITOBA—Continued.																				
<i>Dauphin Lake and River</i>																				
Dauphin	51	8	160	2	957	51.4	—	2	98.0	2	38.0	15	17.1	6.01	—	1.33	8	23	1	
Moose Horn Bay (Atkinsville)	51	15	99.33	710	60.8	—	3	100.4	1	33.3	21	17.6	2.13	—	0.51	14	17	1	9	
Berens River	52	18	97.23	710	60.8	—	3	100.4	1	33.3	21	17.6	2.13	—	0.51	14	17	1	9	
<i>Lake Winnipegosis</i>																				
Swan River	52	6	101.15	1112	58.0	—	3	82.0	1	38.0	21	18.8	4.39	—	0.83	16	15	3	2	
The Pas	54	49	101.15	800	58.0	—	3	82.0	1	38.0	21	18.8	4.39	—	0.83	16	15	3	2	
ONTARIO—																				
<i>The Lake Superior Districts</i>																				
<i>Reigning River</i>																				
Kenora	49	48	94.42	1112	57.5	—	1	87.0	7	39.0	15-17	19.6	4.48	+0.89	1.06	12	19	4	1	
<i>Thunder Bay</i>																				
Kakabeka Falls	48	29	81.25	912	61.5	—	4	92.0	8	31.0	15	27.0	3.28	—	0.75	11	20	5	2	
Port Arthur	48	27	80.12	644	60.3	—	1	92.0	4	30.0	15	18.3	1.97	-1.86	0.74	10	21	4	1	
Schreiber	48	50	87.15	543	58.7	-2.6	14	81.1	4	36.5	15	22.7	4.70	—	1.30	13	18	3	3	
<i>Algonquin</i>																				
Brace Mines	50	18	83.55	595	61.7	0.1	14	88.0	6	26.0	16	24.0	0.79	-3.60	0.25	6	25	5	1	
Copper Cliff	46	30	80.59	—	66.7	—	5	99.0	5	45.0	15	27.3	2.20	—	0.92	10	21	1	1	
Porcupine	48	29	81.18	—	61.0	—	9	93.0	8	17.8	26	24.3	—	—	—	—	—	—	—	
Providence Bay	47	40	82.14	—	62.3	—	2	84.0	10	33.0	18	22.4	0.13	—	0.13	1	30	3	2	
White River	48	35	85.16	1252	62.3	—	2	84.0	10	33.0	18	22.4	0.13	—	0.13	1	30	3	2	
<i>Nipissing</i>																				
Cochrane	49	2	81.0	916	62.7	—	4	98.5	6	35.0	16	23.2	2.71	—	0.50	14	17	3	1	
Haileybury	44	29	79.39	687	67.1	-0.6	21	91.7	6	41.0	16	20.0	3.31	+0.01	1.13	15	16	5	2	
Montreal River	45	8	79.29	—	65.0	—	2	95.0	8	29.0	16	28.2	3.85	—	0.99	11	20	6	1	
<i>Upper Ottawa River</i>																				
Rutherford (Lake Taboo)	46	15	74.18	—	63.9	4.7	18	94.0	1	36.0	15	29.0	5.32	+2.01	0.75	13	18	1	1	
Stoneyhills (Rockcliffe)	46	9	78.6	557	66.7	0.8	23	96.0	2	40.9	1	28.4	2.03	-1.28	0.72	9	22	5	1	
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																				
Almonte	45	12	76.13	390	66.7	—	1	94.0	10	41.7	31	24.2	3.47	—	1.27	7	24	3	1	
Bloomfield	44	59	77.21	261	68.6	0.9	12	92.0	9	44.0	1	22.1	2.35	—	1.67	4	27	1	1	
Hillier	44	31	80.2	—	65.2	—	3	96.0	5	41.0	1	19.8	2.44	—	0.55	4	27	1	1	
Kingston	44	13	76.29	285	67.4	0.1	38	83.2	8	45.1	1	18.3	1.64	1.22	1.01	8	23	7	1	
Montague	44	56	75.57	—	67.4	—	3	96.0	15	42.0	23	25.9	1.88	—	0.79	5	26	2	1	
North Gower	45	8	73.43	—	70.7	—	9	96.0	7	40.0	1	25.9	3.11	—	0.62	5	26	3	1	
Ottawa	45	26	75.42	—	68.1	1.6	29	91.0	4	47.0	31	19.2	3.86	-0.24	0.97	12	19	6	1	
Renfrew	45	26	76.39	416	68.1	-0.1	23	96.0	6	47.0	31	27.6	2.28	-2.86	0.48	10	21	6	1	
<i>Georgian Bay Counties</i>																				
Barrie	44	23	79.41	829	65.3	+1.2	37	99.0	6	39.0	1	22.0	3.04	+0.22	0.62	9	22	5	1	
Beatrice	45	8	79.20	800	65.3	0.0	23	94.0	29	35.0	2	26.1	1.72	—	0.55	4	27	1	1	
Coldwater	44	38	79.40	600	65.2	0.0	16	93.0	5	41.0	1	19.8	2.44	—	0.55	4	27	1	1	
Collingwood	44	31	80.2	—	65.2	-0.3	15	90.5	5	38.0	1	26.7	4.13	+0.48	1.25	11	22	2	1	
Elora	43	41	80.21	1274	66.2	-1.3	40	92.0	6	39.0	1	27.1	2.30	-0.10	0.83	8	23	6	1	
Gravenhurst	44	54	79.20	—	66.1	—	6	92.0	10	40.0	1	22.8	—	—	—	—	—	—	—	
Huntsville	45	19	79.8	—	67.7	—	5	93.0	6	55.0	21	—	1.14	—	0.57	3	28	1	1	
Madison	44	41	79.35	750	67.7	—	1	102.0	6	40.0	1	20.1	—	—	—	—	—	—	—	
Orillia	44	37	79.24	775	68.9	+1.2	16	95.0	5	42.0	20	22.1	3.05	—	0.86	—	—	—	—	
Owen Sound	45	14	80.55	507	68.0	0.0	37	95.0	6	45.0	1	23.7	1.40	-1.73	0.43	9	22	4	1	
Perry Sound	45	10	80.0	625	68.0	0.0	37	95.0	6	45.0	1	23.7	2.02	—	0.80	9	22	1	1	
Ronville	45	15	78.57	1038	68.1	+2.4	37	95.0	6	45.0	1	23.7	2.02	—	0.80	9	22	1	1	
Shelburne	44	5	80.47	—	68.6	0.0	27	89.0	6	41.5	1	29.0	0.91	-2.07	0.30	8	23	6	1	
Uplands	45	48	79.25	—	68.6	0.0	27	89.0	6	41.5	1	29.0	0.91	-2.07	0.30	8	23	6	1	
<i>Lake Huron Counties</i>																				
Burnham	43	2	81.55	600	68.7	+0.2	29	89.1	10	40.0	31	13.9	1.87	-1.03	1.64	8	23	5	1	
Clinton	43	32	82.37	—	67.4	0.0	5	90.0	7	42.0	1-16	21.9	3.07	—	1.42	10	21	3	2	
Georgetown	43	45	81.41	317	67.4	-1.4	22	87.0	11	46.0	1-31	18.1	2.23	+0.34	1.55	9	22	1	2	
Lacknow	43	46	81.30	908	65.3	-0.9	26	89.0	6	40.0	1	22.9	3.01	+0.48	1.25	11	20	2	5	
North Bruce	43	29	81.25	—	66.3	+0.1	24	92.0	6	52.0	15	—	0.68	-2.10	0.65	2	29	1	1	
Point Clark	44	5	81.44	595	—	—	—	—	—	—	—	—	2.16	—	1.36	4	27	1	1	
St. Catharines	42	59	82.24	546	65.1	-0.9	36	85.1	9	41.3	1	17.0	1.06	-1.18	0.52	8	23	1	1	
Southampton	44	30	81.21	656	65.1	-0.9	36	85.1	9	41.3	1	17.0	1.06	-1.18	0.52	8	23	1	1	
<i>Lakes St. Clair &amp; Erie, Niagara Peninsula</i>																				
Chatham	42	27	82.12	595	72.5	+1.5	27	91.0	5-14	48.0	1	19	3.01	+0.27	1.80	4	27	1	1	
Cottam	42	7	82.45	606	69.4	-2.1	25	97.0	8	45.0	18	25.4	6.16	+3.19	2.25	8	23	1	1	
Grimsby	43	15	75.36	70.9	—	—	3	96.0	6	49.0	19	21.3	1.38	—	0.35	8	23	1	1	
Pelco Island	41	50	82.32	585	77.2	—	9	84.0	6	45.0	2	29.0	3.24	+0.09	2.19	1	14	9	22	
Port Burwell	42	28	80.55	592	67.8	—	8	89.0	6	45.0	1	17.6	1.86	1.94	-1.28	0.47	11	20	3	1
Port Dover	42	27	80.13	625	68.8	0.6	37	87.5	6-10	45.5	1	18.6	1.94	-1.28	0.47	11	20	3	1	
Port Stanley	42	40	81.12	592	68.3	-0.4	38	86.2	6	45.8	1	17.5	3.91	+0.55	1.29	11	20	2	2	
St. Catharines	42	59	82.24	546	65.1	-0.9	36	85.1	9	41.3	1	17.0	1.06	-1.18	0.52	8	23	1	1	
Stoney Creek	43	17	79.45	292	69.0	0.0	29	93.0	6-8	43.0	1	20.3	2.83	-0.27	0.72	6	25	2	1	
Wellandburg	42	35	82.24	—	69.6	—	8	89.0	9	40.0	18	20.9	3.30	—	0.74	1	20	6	22	
Winifred	41	29	79.17	577	72.3	+1.2	29	91.0	6-11	46.0	1	26.6	1.45	-0.74	0.36	7	24	1	1	
Windsor	42	9	83.4	625	70.1	+4.2	27	87.0	10-18	52.0	2	17.4	4.09	+1.67	2.56	13	19	1	1	
Windham Centre	42	9	83.4	625	70.1	+4.2	27	87.0	10-18	52.0	2	17.4	4.09	+1.67	2.56	13	19	1	1	



STATION	LATITUDE			TEMPERATURE				PRECIPITATION				WIND						
	Latitude N.	Longitude W.	Elevation above sea level in feet.	Mon.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	Days with 10 or more.	No. of days.	No. of gales.	No. of thunderstorms.
ONTARIO—Continued—																		
West-Central Counties																		
Alton.....	43 51	80 51	1259	66.9	+ 0.1	24	94.0	10	46.6	31 23 2	2.53	+0.15	0.64	8	23	3		
Brantford.....	43 10	80 21	750	67.5	+ 0.4	26	85.5	7	44.0	30 24 0	0.25	-2.32	0.19	3	28			
Guelph.....	43 33	80 16	1050	67.5	+ 0.4	26	85.5	7	44.0	30 24 0	0.25	-2.32	0.19	3	28			
London.....	42 59	81 13	508	69.9	+ 2.0	28	92.0	9-11	49.5	1 24 1	4.37	+1.93	1.37	10	21	2		
Paris.....	43 12	80 25	840	69.4	+ 0.1	23	94.0	7	42.0	1 23 4	2.44	+0.02	0.56	9	22	3		
Stratford.....	43 23	81 0	1191	67.2	- 1.2	38	88.0	10	41.0	1 21 7	2.90	-0.54	0.90	13	15			
Woodstock.....	43 8	80 47	980	67.2	- 1.2	38	88.0	10	41.0	1 21 7	2.90	-0.54	0.90	13	15			
Lake Ontario Counties																		
Agincourt.....	43 47	79 19	590	69.2	+ 1.5	16	95.7	10	45.1	29 25 1	2.13	-0.10	1.14	6	25			
Aurora.....	43 57	79 24	886	67.2	- 1.6	28	92.0	6-7	45.0	1 18 6	3.00	+0.43	1.14	9	22			
Hamilton.....	43 16	79 54	303	70.4	- 1.6	28	92.0	6-7	45.0	1 18 6	3.00	+0.43	1.14	9	22			
Lorne Park.....	43 43	79 13	850	69.6	+ 0.5	71	92.0	8	46.0	1-20 20 3	1.85	-0.38	0.96	13	18	7		
Toronto.....	43 40	79 24	350	66.8	- 0.8	85	90.0	6	18.0	20 15 0	3.75	+0.65	1.29	8	22			
Toronto Is (Lakeside Home)	43 40	79 24	350	66.8	- 0.8	85	90.0	6	18.0	20 15 0	3.75	+0.65	1.29	8	22			
Uxbridge.....	43 54	79 8	886	67.0	- 0.8	85	90.0	9-10	41.0	1 21 6	4.36	-	1.10	9	22			
Wexford.....	43 44	79 17	555	65.7	-	1	87.0	10	43.0	1-20 18 0	2.44	-	1.04	8	23	3		
East-Central Counties																		
Bancroft.....	45 1	77 50	—	—	—	21	91.0	6	38.6	1	1.70	-1.50	0.90	3	28			
Haliburton.....	45 1	78 28	1050	65.9	- 1.6	25	95.0	6	36.0	1 28 2	6.00	+2.83	1.60	9	22	6		
Kilmour.....	44 45	78 38	920	65.6	+ 0.1	13	90.0	6	41.0	1 26 7	3.96	-	0.77	9	22			
Lakefield.....	44 25	78 15	850	68.0	+ 0.8	33	91.6	7	40.5	20 23 7	3.91	+1.41	1.25	12	19	8		
Lindsay.....	44 20	78 45	872	68.0	+ 0.8	33	91.6	7	40.5	20 23 7	3.91	+1.41	1.25	12	19	8		
Madoc.....	44 30	77 29	775	68.2	- 2.3	42	91.0	10	40.0	1 25 0	2.44	-	0.55	8	23	1		
Peterboro.....	44 17	78 19	719	65.2	-	5	84.0	3	39.0	15 21 4	1.85	-	0.95	3	28	3		
Ursa.....	44 54</																	



## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, SLEET, OR HAIL, DURING JULY, 1902.

STATIONS.	RAINFALL.				Date	SNOWFALL.				Remarks.
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days	Heaviest Fall in Month		Amount in inches.	No. of Days .1 or over.	No. of Fair Days	Heaviest Fall in Month	
BRITISH COLUMBIA—										
Alkali Lake .....	2.28	13	20	1.61	25					
Annis (Cano Point) .....	2.51	19	15	0.57	17					
Armstrong .....	1.4	9	22	0.35	17					
Akamina .....										
Beaver Lake .....	0.70	5	25	0.61	7					
Barriere Valley (Louis Cr.) .....	3.32	10	21	1.06	22					
Coquitlam .....	2.63	7	24	0.62	24					
Deaman's Island .....	1.29	5	26	1.09	24					
Ferguson .....	3.28	13	18	0.12	23					
Goldstream Lake .....	0.99	8	25	0.24	12					
Hydraulic .....	2.70	10	21	0.55	25					
Horaby Island .....	1.15	3	28	0.75	21					
Indian River .....	1.10	11	20	0.54	23					
Jordan River .....										
Jordan River (Bear Creek) .....	0.99	8	23	0.32	23					
Little Qualicum .....	1.98	7	24	0.51	25					
Monte Creek .....	1.97	11	20	0.18	25					
Nans Harbour .....	1.32	4	27	0.77	12					
Skidegate .....										
Shawigan Lake .....	0.75	6	25	0.25	24					
Wycliffe .....	2.42	11	29	0.35	9					
ALBERTA—										
Bardo .....	1.12	7	21	1.20	5					
Bismark .....	3.02	8	23	1.01	7					
Brueclerheim .....										
Bittern Lake .....	4.39	15	16	1.15	7					
Brooks .....										
Campsie .....										
Caldwell .....	3.8	13	18	0.85	15					
Conjuring Creek .....	5.20	11	20	1.22	15					
Doreales .....	4.67	13	18	1.00	13					
Dunsable .....										
Five Lakes .....	4.26	18	13	0.70	14-25					
Grassy Lake .....	0.5	4	27	0.19	11-25					
Jumping Pound .....	2.49	14	17	1.71	11					
Lacombe .....										
Loch Sloy .....										
Lynden .....	7.75	6	25	4.43	8					
Lincham .....	8.61	5	26	3.20	21					
La Pearl .....	4.31	12	19	1.20	13					
Macleod .....	3.35	11	20	1.32	8					
Mayeroff .....	4.44	12	12	0.81	24					
Natchy .....										
Nanton .....	6.72	18	13	1.15	8					
Okotoks .....	6.13	12	19	1.77	24					
Pekisko .....	5.43	15	16	1.30	7					
Ponoka .....	9.12	11	29	1.63	6					
Priddis .....	5.59	15	15	1.05	8					
Sioa .....										
Seven Persons .....	1.05	4	27	0.45	24					
Tilley .....										
SASKATCHEWAN—										
Aberfeldy .....	4.84	13	18	0.85	1					
Gull Lake .....	2.24	9	22	0.50	1-4					
Gull Lake, Eks. Swift Cur .....	0.88	5	26	0.28	5					
Last Mountain .....	3.07	14	17	1.65	27					
Maple Creek .....	1.56	12	19	0.38	6					
Meadow Lake .....	0.55	5	26	0.15	26					
Nashua (Ketchikan) .....										
Willow Creek (Battle Cr.) .....	0.97	7	24	0.31	13					
MANITOBA—										
Cartwright .....	3.64	12	19	0.65	22					
Deloraine .....	2.68	12	19	1.40	25					
Gretna .....										
Norquay (Swan Lake) .....	4.57	15	16	0.79	27					
Rapid City .....	4.50	11	20	0.99	27					
Rose Bank .....	4.73	11	20	1.67	5					
ONTARIO—										
Deer Park .....	1.64	6	25	0.95	21					
Dutton .....	4.03	7	24	1.54	15					
Ennisdale .....	1.68	5	26	0.98	14					
Fort Frances .....										
Georgetown .....	2.26	7	24	1.19	21					
Grantham .....	1.27	8	23	0.27	26					
Grand Valley .....	3.32	11	20	1.79	21					
Hillier .....	2.75	6	25	2.11	21					
Indian Chutes (Elk Lake) .....	3.14	13	18	0.80	4					
MacOe .....	1.75	5	26	0.61	28					
Sydenham .....	2.65	4	27	0.85	21					
Strathroy .....	3.24	9	22	1.04	24					
Watford .....	4.44	10	21	0.55	21					
Westport .....	2.04	5	26	0.66	21					
Westminster .....	3.75	9	22	1.35	15					
Wooler .....	2.46	7	24	1.32	4					
Wesley .....	2.65	12	19	1.27	11					
Wattenwyl .....	2.21	7	24	0.98	13					
Warton .....	1.88	4	27	0.55	15					
QUEBEC—										
Lucerne .....	2.40	3	28	1.35	18					
Perkins Mills .....	1.89	7	24	0.83	18					
Quinze Jours .....	4.18	9	22	1.45	8					
Timiskaming .....	1.54	5	26	0.71	28					
NEW BRUNSWICK—										
Point Esquimaux .....	5.65	8	23	2.15	2					
NOVA SCOTIA—										
Big Mushamush Lake (Ma-										
hones) .....	5.20	3	28	4.59	4					
Kentville .....	5.38	11	20	1.09	10					
Kedgema-kong Lake (New										
Grafton) .....										
Milton .....										
Mushamush River (Mahone)	5.30	3	28	4.40	20					
New Germany .....										
New Alton .....	8.12	12	19	2.41	20					
White Rock .....	6.88	12	19	5.61	10					

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF JULY, 1912.

a Barometer not reduced to sea level

STATION							PRESSURE.			DIRECTION OF WIND FROM										VELOCITY OF WIND					
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean reduced.	Highest.	Lowest.	Range.	Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.									Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.			
											N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					C.		
BRITISH COLUMBIA— Athlonsay .....	59° 35'	133° 38'	2240	30.07	30.66	29.79	0.87	78	6	6	0	0	1	12	30	4	0	5	e	6	9.0	24.0	—	—	
Barkerville .....	53° 2'	121° 35'	4180	30.02	30.3	29.3	0.89	67	6	6	0	0	0	9	3	5	8	1	0	45	62	17.0	10.0	—	
Kamloops .....	50° 43'	120° 29'	2348	29.92	30.2	29.67	0.60	68	5	4	2	2	4	12	1	2	8	15	1	40	62	2.7	15.0	1SW	
Okanagan .....	49° 10'	123° 37'	125	29.92	30.15	29.74	0.41	83	4	4	1	2	4	1	0	1	13	26	6	6	30.0	15NW	—	—	
Prince Rupert .....	54° 18'	130° 18'	170	30.07	30.4	29.80	0.63	78	18	0	0	0	1	11	10	7	5	1	37	62	1.6	6.0	3SE	—	
Triangle Island .....	50° 52'	129° 5'	680	30.14	30.7	29.88	0.61	93	5	3	0	0	0	3	0	0	17	30	2	6	14.8	55.0	16NW	—	
oTranquille .....	50° 41'	130° 29'	135	29.92	30.8	28.31	0.46	68	5	1	2	2	0	10	0	0	7	33	2	0	3.2	10.0	—	—	
Vancouver .....	49° 17'	123° 5'	136	30.02	30.28	29.87	0.37	75	4	1	1	1	8	13	0	6	8	13	14	63	3.2	10.0	—	—	
Victoria .....	48° 24'	123° 19'	85	30.02	30.2	29.84	0.43	71	4	2	2	1	0	1	2	15	21	6	0	15	63	3.9	21.0	—	—
YUKON— Dawson .....	64° 4'	139° 20'	1200																						
ALBERTA— Banff .....	51° 10'	115° 34'	4542	29.99	30.37	29.71	0.66	7	7	2	7	0	0	1	20	4	0	27	62						
Calgary .....	51° 2'	114° 2'	3389	29.95	30.29	29.64	0.75	10	5	7	7	1	10	4	1	2	32	0	62						
Edmonton .....	53° 35'	113° 30'	2188	29.92	30.43	29.62	0.81	6	5	3	7	1	6	6	5	10									
Medicine Hat .....	50° 1'	110° 37'	2161	29.91	30.36	29.55	0.81	6	5	2	1	2	0	3	28	15	6	6	62						
SASKATCHEWAN— Battleford .....	52° 41'	108° 20'	1620	29.94	30.40	29.64	0.76	80	3	5	4	15	1	7	10	15	33	93							
Moose Jaw .....	50° 21'	105° 35'	1759	29.89	30.33	29.50	0.77	86	7	5	14	6	0	12	7	10	32	93							
Prince Albert .....	53° 10'	106° 0'	1432	29.91	30.29	29.61	0.68	88	7	1	2	1	1	5	4	7	34	62							
Qu'Appelle .....	50° 30'	103° 47'	215	29.92	30.35	29.59	0.76	84	2	4	5	5	8	12	8	19	1	62							
Swift Current .....	50° 20'	107° 45'	239	29.97	30.41	29.64	0.77	79	2	4	4	12	4	11	31	23	2	93							
MANITOBA— oAweme (St. Alban's) .....	49° 42'	99° 33'	1180					.7	6	1	4	5	1	2	2	10	35	62							
Manitowish .....	50° 15'	99° 50'	1699	29.93	30.36	29.64	0.72	81	7	6	1	4	5	1	2	2	10	35	62						
The Pas .....	53° 49'	101° 15'	890	29.91	30.39	29.55	0.84	81	12	8	6	1	7	2	5	4	15	6	3	62					
Winnipeg .....	49° 53'	97° 7'	700	28.95	30.37	29.55	0.82	6	1	12	6	1	7	6	7	5	11	4	62						
ONTARIO— Cochrane .....	49° 2' 81	0	946	29.98	30.36	29.67	0.69		11	0	2	3	11	15	6	9	2	62							
Haileybury .....	47° 29' 79	39	687	29.98	30.38	29.69	0.69		8	1	0	1	13	11	6	12	10	62							
Kingston .....	44° 13' 76	29	285	30.00	30.32	29.56	0.76		3	11	0	4	2	29	5	7	1	62							
London .....	42° 59' 81	13	808	30.01	30.29	29.69	0.60	5	4	1	27	28	17	0	9	11	0	93							
Ottawa .....	45° 26' 75	42	244	29.96	30.27	29.53	0.74		1	1	8	2	7	17	19	7	0	62							
Perry Sound .....	45° 19' 80	0	633	30.00	30.32	29.65	0.67		8	3	5	2	7	14	8	5	6	62							
Port Arthur .....	48° 27' 89	12	644	29.97	30.28	29.67	0.61	.6	8	3	7	19	6	2	7	10	5	62							
Port Stanley .....	42° 40' 81	13	592	29.98	30.25	29.63	0.62	4	3	1	0	12	5	1	6	6	16	15	62						
Southampton .....	44° 30' 81	21	656	30.02	30.32	29.70	0.63	.6	5	11	8	2	0	15	3	2	5	6	62						
Stoneyhills .....	46° 9' 78	6	557	29.98	30.41	29.62	0.79		0	2	0	0	0	0	10	1	48	62							
Toronto .....	43° 40' 79	24	350	30.00	30.29	29.60	0.69		10	7	13	0	1	2	14	6	9	62							
White River .....	48° 35' 85	16	1252																						
Woodstock .....	43° 8' 80	47	980	30.00	30.26	29.65	0.61	74	6	5	8	6	7	6	6	25	10	25	0	93					
QUEBEC— Father Point .....	48° 31' 68	19	20	29.89	30.28	29.49	0.79	8	14	4	5	16	0	1	2	22	2	10	62						
Montreal .....	45° 30' 73	35	187	29.95	30.27	29.51	0.76	3	1	5	11	4	3	3	23	5	11	0	62						
Quebec .....	46° 48' 71	13	296	29.92	30.27	29.47	0.80	6	3	1	20	1	2	0	14	18	6	0	62						
NEW BRUNSWICK— Chatham .....	47° 3' 65	29	21	29.92	30.30	29.43	0.81	6	7	3	8	13	1	1	6	24	4	0	62						
Fredericton .....	45° 57' 66	36	164	29.93	30.29	29.49	0.80	75	6	4	3	7	4	16	2	16	18	21	5	93	7.1	13.7	23SE	—	
St. John .....	45° 17' 66	4	70	29.94	30.27	29.45	0.82	7	4	8	5	2	2	27	6	1	6	6	62						
NOVA SCOTIA— Halifax .....	44° 39' 63	26	88	29.91	30.35	29.32	1.03	3	10	2	5	4	3	25	8	2	6	62							
Sydney .....	45° 10' 60	10	35	29.92	30.30	29.30	1.09	7	17	5	4	6	6	2	8	20	4	7	62						
oWolfville .....	45° 7' 64	20	29	29.94	30.30	29.11	1.26		4	11	1	5	2	2	13	7	15	60							
Yarmouth .....	43° 50' 66	2	65	29.97	30.31	29.53	0.78		4	5	0	1	9	24	6	6	7	62							
P. E. ISLAND Charlottetown .....	46° 14' 63	10	38	29.91	30.29	29.1	1.00		5	7	1	1	10	16	2	1	19	62							
NEWFOUNDLAND Burin .....	47° 0' 55	10	27																						
Fogo .....	49° 43' 54	17	30																						
Port aux Basques .....	47° 35' 59	10	27	29.93	30.40	29.42	0.98		1	1	39	11	0	0	6	4	0	62							
St. John's .....	47° 34' 52	42	125	29.92	30.33	29.24	1.09		4	13	5	8	5	5	10	15	1	1	62						
BERMUDA Prospect .....	32° 17' 64	46	151																						

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF JULY, 1912

## DIRECTION OF WIND FROM

STATION	N	N.E.	E	S.E.	S	S.W.	W.	N.W.	C	P. C.
<b>ALBERTA—</b>										
Athabasca Landing.....	0	2	1	1	3		13	10	0	31
Alex.....										
Halkirk (Emsburg).....	7	11	1	9	16	3	4	21	10	62
Hilldown.....	0	9	0	8	6	6	0	33	4	62
Loveland.....	1	14	4	8	5	8	8	14		62
Macleod.....										
Pakan (Victoria).....	6	11	1	0		20	10	5	7	62
Ranfurly (Waitfield).....	12	15	5	4	3		22	10	16	93
<b>SASKATCHEWAN—</b>										
Chaplin.....	0	1	0	1	0	3	0	29	0	31
Crescent Lake.....	0	4	1	1	8	1	3	6	7	31
Estevan.....	3	1	8	3	4	6	4	3	0	31
Fort Qu'Appelle.....	3	2	15	5	2	5	12	12	6	62
Grenfell (Brownhill).....	1	11	1	12	4	17	2	14		61
Indian Head.....	12	2	5	8	8	10	17	18	13	93
Larchmount (Glenbryan).....	0	6	9	8	11	8	15	16	0	62
Moosomin.....	0		18	0	0	1	9	3	0	31
Muenster (St. Peter's Monastery).....	12	17	0	9	7	9	2	6	0	62
Onion Lake.....										
Pense (Gatesgarth).....	0	5	0	16	0	1	0	9	0	31
Waseca.....	1	4	1	2	1		11	4	0	31
<b>MANITOBA—</b>										
Berens River.....										
Brandon.....	0	24	4	8	1	23	9	16	8	93
Hillview.....	8	20	12	8	4	18	6	11	0	87
Moose Horn Bay (Aitkensville).....	18	5	2	3	5	3	7	6	7	86
Morden.....	10	1	2	7	2	8	14	10	8	62
Oak Bank.....	8	0	1	2	2	2	11	5	0	31
Stony Mountain.....										
<b>ONTARIO—</b>										
Agincourt.....	3	2	14	14	16	21	4	19	0	93
Alton.....										
Beatrice.....	13	0	0	2	16	4	2	8	45	90
Birnam.....	17	3	8	7	13	3	4	3	4	62
Clinton.....	2	3	1	6	17	3	11	16	0	62
Cottam.....	20	0	3	9	21	2	6	1	0	62
Gravenhurst.....										
Lindsay.....										
North Bruce.....	6	0	15	0	29	4	33	6	1	93
Orillia.....	1	2	0	5	8	9	1	3	2	31
Owen Sound.....										
Point Clark.....	20	2	5	4	20	2	8	1	0	62
Port Dover.....	7	4	3	3	6	4	1	3	0	31
Scarboro Junction.....										
Stoney Creek.....	1	48	3	0	0	31	9	4	0	93
Uplands.....	6	0	2	0	5	0	18	0	0	31
Wexford.....	4	0	4	0	0	6	1	6	10	31
<b>QUEBEC</b>										
Abitibi.....	18	0	2	3	25		29	9	0	93
Anticosti, W. Pt.....	4	9	16	1	34	4	9	16		93
Anticosti, Heath Point.....	1	9	21	3	5	18	14	7	13	91
Bicquet.....	0	20	0	1	7	5	30	10		93
Brome.....	24	0	2	0	14	16	33	3	1	93
Cape Chatte.....	1	3	22	0	1	2	36	0	28	93
Cape Magdalen.....	2	0	6	6	21	7	5	29	17	33
Cape Rouge.....	7	4	0	0	0	4	0	16	0	31
Chicoutimi.....	0	17	0	10	0	52	0	8	6	93
Clarke City.....	5	4	1	0	0	5	3	6	0	29
Roberval.....										
White Shore Lake.....	8	1	0	0	1	4	10	4	0	31
<b>NEW BRUNSWICK</b>										
Dalhousie.....	0	0	13	1	0	0	7	4	7	31
Moncton.....	1	9	0	3	0	8	8	3	2	74
Pt. Lepreau.....	7	3	13	0	9	10	24	15	0	81
Sussex.....	0	4			6	0	1	0	18	31
<b>NOVA SCOTIA—</b>										
Kentville.....	1	0			2		13	5	0	31
Parsonsboro.....										
Port Hastings.....	0	1	0	8	1	10	0	1	0	31
Sable Island, E. Pt.....	0	7	0	0	0	18	0	28	0	93
Truro.....										
Whitehead.....	5	2	12		7	5	11	1	10	93

## MEAN TEMPERATURE OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF JULY, 1922.

STATION	HOURS															
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria	..		T 10	35	54	69	79	75	74	71	77	74	60	56	47	..
Schumacher			10	41	52	58	63	64	60	70	71	60	50	42	32	..
Nanaimo																..
Vancouver			09	27	37	46	48	54	60	64	64	64	57	44	30	..
Agassiz				16	31	50	51	51	56	54	55	55	49	42	34	..
Tranquille			09	20	30	33	61	57	61	70	68	55	37	20	05	..
Summerland			19	49	75	50	62	60	56	70	71	69	62	49	10	..
Kamloops			14	28	46	48	59	55	59	67	68	66	56	38	17	T
Edmonton			11	50	48	58	90	60	54	47	40	52	52	43	35	13
Lethbridge			14	52	65	70	68	70	68	71	66	61	55	54	47	23
Lacombe			00	20	31	59	57	56	56	54	50	40	30	26	17	T
McBaine Hat			22	50	63	65	75	78	71	72	68	72	68	67	55	24
Fort Dunvegan			04	20	35	44	54	54	56	59	74	49	16	43	28	.09
Fort Vermilion			12	37	55	56	64	64	62	60	60	72	69	64	48	31
Battleford			00	1	42	48	59	55	57	59	59	62	60	55	74	34
Indian Head				00	26	31	60	46	51	75	50	50	70	32	25	.08
Mooseneau			T 21	35	47	55	72	60	57	63	57	58	48	51	41	29
Scott			T 10	33	44	43	51	55	56	56	61	58	58	41	13	.06
Rochester				34	20	32	74	45	48	48	54	52	55	48	41	23
Brandon			02	20	35	51	59	70	66	63	61	58	48	21	04	..
Winnipeg			T 27	8	2	57	63	59	69	64	64	57	46	39	20	.04
Hitchcock			T 24	37	53	56	62	65	65	62	59	57	55	55	48	28
Woodstock			1	28	52	61	73	74	62	67	65	72	68	59	49	01
Lindsay			24	58	61	67	71	68	68	62	62	60	52	32	01	..
Barrie			11	48	57	62	67	72	64	64	60	63	56	51	47	01
Toronto			00	54	76	80	80	82	81	77	76	70	69	64	60	04
Kinston			20	59	74	74	81	81	82	79	8	73	72	60	45	14
Ottawa			20	68	77	80	80	82	80	80	81	79	75	71	53	30
Montreal			T 27	65	77	80	77	84	87	80	80	88	87	83	76	23
Cap Rouge			27	78	49	50	65	74	72	68	64	64	58	53	44	10
Quebec			T 27	48	41	51	70	78	73	74	60	50	60	53	36	04
Sherrbrooke			21	47	58	61	70	72	69	72	70	66	67	68	54	31
Fredericton			05	27	43	47	54	55	59	59	61	57	50	51	42	19
Charlottetown			14	27	69	51	58	60	64	56	48	49	41	42	27	10

	Vancouver	Victoria	Nanaimo	Schumacher	Kamloops	Edmonton	Lethbridge	Lacombe	McBaine Hat	Fort Dunvegan	Fort Vermilion	Battleford	Indian Head	Moos Jaw	Scott	Rochester	Brandon	Winnipeg	Hitchcock	Woodstock	Lindsay	Barrie	Toronto	Kinston	Ottawa	Montreal	Cap Rouge	Quebec	Sherrbrooke	Fredericton	Charlottetown	
Recorded duration in hours	218	10	..	..	240	214	192	254	177	26	171	237	228	140	246	234	165	176	17	227	234	214	225	287	276	313	322	225	213	257	196	181
Percentage of possible hours	45	44	..	..	49	43	38	54	36	33	34	41	45	29	44	37	33	33	37	47	50	49	48	62	59	66	75	47	44	54	41	38
Difference from average	-17	..	..	..	..	..	..	..	..	..	..	-10	-20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maximum percentage any one day	80	80	..	..	84	85	81	90	80	87	77	84	90	75	91	87	67	82	90	84	74	85	89	85	80	96	85	78	87	87	83	85
Difference from average	30	35	..	..	30	28	20	30	18	20	11	20	28	28	30	29	10	16	27	16	16	10	16	17	24	17	17	24	3	3	19	..
Number of stations exceeding above	1	..	..	..	2	4	4	2	7	6	6	1	6	7	1	5	5	..	1	1	1	0	0	1	1	0	3	1	2	3	5	..



*Thunder Recorded—*

1. Treherne, Almasippi, Morden, Ningo, Minnedosa, Crescent Lake, Chaplin, Fort Qu'Appelle, Melfort, Lost River.

2. Almasippi, Oakbank, Port Dover, Fort Qu'Appelle.

3. Emsdale, Wesley, Beatrice, Kakabeka Falls, Markdale, Minto, Lucknow, Clinton, Haliburton, Peterboro, Bruce Mines, Rutherglen, Winnipeg, Gravenhurst, Fort Qu'Appelle.

4. Emsdale, Georgetown, Indian Chutes, Quinze Dam, Brome, La Tuque, Shawinigan Falls, Chicoutimi West, Mistassini, Lake Edward, Agincourt, Montreal River, Madoc, Haliburton, Peterboro, Renfrew, Orillia, Bruce Mines, Wexford, Rutherglen, White Shore Lake, Father Point, Toronto, Chatham, N.B., Lindsay, Haileybury, Divide, Schreiber, Greenwood, Fort Vermillion (2).

5. Norquay, Rapid City, Cartwright, Wooler, Georgetown, Warton, Wesley, Westminster, Deer Park, Treherne, Almasippi, Toronto, Winnipeg, Chatham, N.B., Sydney, Minnedosa, Port Stanley, Lindsay, Aweme, Morden, Shawinigan Falls, Agincourt, Hamilton, North Gower, Lucknow, Paris, Madoc, Port Burwell, Clinton, Peterboro, Birmam, Brandon, Moncton, Westport, Aitkensville, Fredericton, Wexford, Stouffville, Charlottetown, Ottawa, Divide, Pamburn, Rathmullen, Gull Lake, Rossland.

6. Norquay, Almasippi, Morden, Oakbank, Shawinigan Falls, Goderich, Markdale, Lucknow, Haliburton, Birmam, Aitkensville, Antigonish, Southampton, Winnipeg, Gravenhurst, Pamburn, Muenster, Saskatoon.

7. Emsdale, Treherne, Almasippi, Oakbank, Chicoutimi, Shawinigan Falls, Chicoutimi West, Mistassini, Lake Edward, Beatrice, Montreal River, Lucknow, Haliburton, Bruce Mines, Point Riche, Rutherglen, White Shore Lake, Winnipeg, Parry Sound, Cochrane, Quebec, Gravenhurst, Haileybury, Divide, Chaplin, Pense, Pamburn, Saskatoon, Ursa.

8. Norquay, Emsdale, Georgetown, Wesley, Treherne, Almasippi, Aweme, Brome, Shawinigan Falls, Chicoutimi West, Parry Sound, Quebec, Lindsay, Gravenhurst, Lake Edward, Agincourt, Beatrice, Ronville, Montreal River, Markdale, Lucknow, Clinton, Haliburton, Peterboro, Renfrew, Orillia, Wexford, Moncton, Westport, Toronto, Aitkensville, Rutherglen, White Shore Lake, Charlottetown, Winnipeg, Crescent Lake, Chaplin, Muenster, Fort Qu'Appelle, Lost River.

9. Westminster, Point Lepreaux, Hamilton, P. E. I., Sussex, Shawinigan Falls, Hamilton, Ont., Paris, Madoc, Fredericton, Providence Bay, Haliburton, Peterboro, Renfrew, Bruce Mines, Moncton, Westport, Uplands, Antigonish, Rutherglen, Charlottetown, Ottawa, St. John, Kingston, Winnipeg, Sydney, Minnedosa, Cochrane, Lindsay, Gravenhurst, Muenster, Fort Qu'Appelle, Ursa.

10. Rapid City, Emsdale, Georgetown, Wesley, Westminster, Perkins Mills, Hillview, Aweme, Brome, La Tuque, Mistassini, Wexford, Moncton, Aitkensville, White Shore Lake, Stonecliff, Ottawa, Toronto, Montreal, Quebec, Truro, Lindsay, Gravenhurst, Shawinigan Falls, Chicoutimi West, Lake Edward, Agincourt, Paris, Stoney Creek, Montreal River, North Gower, Brantford, Markdale, Port Dover, Almonte, Lucknow, Madoc, Providence Bay, Haliburton, Peterboro, Renfrew, Orillia, Birmam, Crescent Lake, Chaplin, Muenster, Rathmullen, Yellow Grass, Fort Qu'Appelle, Lost River, Ursa.

11. Norquay, Rapid City, Cartwright, Hillview, Treherne, Almasippi, Aweme, Oakbank, Kentville, Windsor, N.S., Sussex, Hamilton, P.E.I., Clinton, Moncton, Westport, Point Riche, Fredericton, White Rock, Charlottetown, Ottawa, St. John, Winnipeg, Sydney, Halifax, Minnedosa, Wolfville, Crescent Lake, Chaplin, Muenster, Yellow Grass, Fort Vermillion (2).

12. Oakbank, Kakabeka Falls, Brantford, Winnipeg, Yarmouth, Minnedosa, Truro, Schreiber.

13. Rapid City, Emsdale, Hillview, Brome, Beatrice, Montreal River, Lucknow, Madoc, Haliburton, Peterboro, Renfrew, Lindsay, Westport, Aitkensville, Uplands, Rutherglen, White Shore Lake, Stonecliffe, Kingston, Port Arthur, Montreal, Quebec, Haileybury, Gravenhurst, Muenster, Lost River.

14. Cartwright, Hillview, Kakabeka Falls, Aitkensville, Kingston, Winnipeg, Port Arthur, Minnedosa, Lost River.

15. Rapid City, Emsdale, London, Wooler, Georgetown, Lindsay, Wesley, Westminster, Perkins Mills, Hillview, Chicoutimi, Shawinigan Falls, Copper Cliff, Wexford, Bloomfield, Westport, Aitkensville, Uplands, Rutherglen, Stonecliff, Ottawa, Kingston, Toronto, Parry Sound, Port Stanley.

ley, Chicoutimi West, Lake Edward, Agincourt, Muenster, Hamilton, Ont., Montreal River, Montague, North Gower, Brantford, Port Dover, Almonte, Lucknow, Paris, Madoc, Providence Bay, Port Burwell, Clinton, Haliburton, Peterboro, Orillia, Birnam, Bruce Mines.

16. Treherne, Oakbank, Moncton, Father Point, St. John, Kingston, Minnedosa, Crescent Lake, Fort Qu'Appelle.

17. Cochrane.

18. Chicoutimi, Lucknow, Uplands, Fort Qu'Appelle.

19. Norquay, Cartwright, Treherne, Almasippi, Oakbank, Winnipeg, Crescent Lake, Chaplin.

20. Saskatoon, Rossland.

21. Port Dover, Toronto, Yellow Grass, Rossland, Greenwood.

22. Norquay, Cartwright, Treherne, Ninette, Almasippi, Morden, Chaplin, Muenster, Rosthern, Saskatoon, Yellow Grass, Fort Qu'Appelle.

23. Norquay, Rapid City, Treherne, Almasippi, Morden, Oakbank, Aitkensville, Winnipeg, Crescent Lake, Muenster, Rathmullen, Saskatoon, Lost River.

24. Toronto, Saskatoon.

25. Rapid City, Cartwright, Ninette, Almasippi, Kingston, Rathmullen, Willow Creek, Rossland, Lost River.

26. Norquay, Rapid City, Treherne, Almasippi, Morden, Oakbank, Mistassini, Lake Edward, Winnipeg, Ninga, Minnedosa, Quebec, Divide, Muenster.

27. Norquay, Rapid City, Cartwright, Treherne, Almasippi, Morden, Midland, Lucknow, Birnam, D'Israeli, Aitkensville, Winnipeg, Minnedosa, Haileybury, Crescent Lake, Muenster, Saskatoon, Schreiber, Fort Qu'Appelle, Lost River.

28. Cartwright, Emsdale, Beatrice, Kakabeka Falls, Montague, North Gower, Almonte, Lucknow, Haliburton, Renfrew, Birnam, Westport, Uplands, Rutherglen, Stonecliffe, Ottawa, Port Arthur, Minnedosa, Saskatoon.

29. Kakabeka Falls, Port Burwell, Peterboro, Orillia, Uplands, Port Arthur, Parry Sound, London, Lindsay, Gravenhurst.

30. Cartwright, Oakbank, Brome, Shawinigan Falls, Westport, Quebec, Fort Vermillion (2).

31. D'Israeli.

*Auroras recorded--*

- 1.
2. Rutherglen.
3. Madoc IV, White Shore Lake III, Haileybury III.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
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- 12.
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- 22.
- 23.
- 24.
- 25.
26. Aitkensville IV.
- 27.
- 28.
- 29.
- 30.
- 31.

## FORECASTS FOR JULY 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1307. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage
Alberta.....	80	57	14	9	80.0
Saskatchewan.....	79	63	10	6	86.1
Manitoba.....	78	62	12	4	87.2
Lake Superior.....	106	51	21	4	86.3
Lower Lake Region.....	126	111	12	3	92.9
Georgian Bay.....	127	111	15	1	93.3
Ottawa Valley.....	116	102	9	5	91.8
Upper St. Lawrence.....	116	103	9	4	92.7
Lower St. Lawrence.....	120	102	13	5	90.4
Gulf.....	121	96	14	11	85.1
Maritime Provinces West.....	120	94	16	10	85.0
Maritime Provinces East.....	118	93	15	10	85.2
Total.....	1307	1075	160	72	88.4

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,

Aug. 27, 1912.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

# Monthly Weather Review

VOL. XXXVI.

AUGUST, 1912

No. 5

## INTRODUCTION.

In compiling the present Review the general observations made by the observers upon the observations received at this office for the month of August, 1912, and reports of land and sea-voluntary observers and other signal stations, have been carefully examined, the paths of areas of high and low pressure in the United States, Canada and the Atlantic, the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

The first and third of the month were quite warm in the west, but on the south-west coast of the island while the last week ended with rather low temperatures. In the interior the highest recorded temperatures occurred between the 21st and the 23rd, on the second and third days were more than 60° Fahrenheit is enough. Over the greater part of the Province the recorded temperature was about 2° lower than normal, and in some parts of the lower coast, 3° lower. On Vancouver Island and in the north of the Province normal temperatures were recorded on the 21st.

### THE WESTERN PROVINCES.

Over the greater portion of the Western Provinces the month was a little cooler than the average. A review of the daily maximum temperatures shows that in most months the temperature did not exceed 70° in 18 days, while at many stations the average temperature in the month was less than 80°. The last few days of the month were rather cool, the average between 65° and 65° and 60°. Frosts began in the Northwest and in parts of Saskatchewan, and in some the early frosts were in the northern and some in the southern branches of the Province. The average temperature of the month was either normal or 1° higher. The average temperature of the month was 65° with a record of 70° on the 7th, 8th and 19th, 21st and 22nd. The average temperature of the month was 65° with a record of 70° on the 7th, 8th and 19th, 21st and 22nd. The average temperature of the month was 65° with a record of 70° on the 7th, 8th and 19th, 21st and 22nd. The average temperature of the month was 65° with a record of 70° on the 7th, 8th and 19th, 21st and 22nd.

### ONTARIO.

Mean temperatures were above and below normal. In the Rainy River and Thunder Bay districts the deficiency amounted to 2° and 3° below normal, but more than 5° below in some cases for the 5th. The average temperature for the month was 65° and lower than normal, especially in the northern and eastern districts. The average temperature for the month was 65° and lower than normal, especially in the northern and eastern districts. The average temperature for the month was 65° and lower than normal, especially in the northern and eastern districts. The average temperature for the month was 65° and lower than normal, especially in the northern and eastern districts.

## QUEBEC

Temperature conditions were much the same as in Ontario, long periods with consistently sub-normal maxima reducing the mean temperature of the month from 3° to 4° below the normal along the St. Lawrence, and 6° below in the Abitibi region.

## THE MARITIME PROVINCES.

In many districts a temperature of 80° was reached but once during the month or not at all, and at no place on more than two days, while during the last few days of the month maxima were about 60° and minima about 40°. The mean temperature of the month ranged between 2° and 4° lower than normal.

## PRECIPITATION.

The rainfall was very much heavier than is usual for August over the greater part of the Dominion, the excepted area comprising the Province of Manitoba, the Districts of Rainy River and Thunder Bay, in Ontario, and a few localities in Alberta and British Columbia and on the Atlantic Coast. The accompanying excessive cloudiness appeared to have had a great effect on the temperature of the air, reducing the mean maximum temperature below normal, but also delaying the commencement of night frosts in the West.

## BRITISH COLUMBIA.

The heaviest falls occurred between the 8th and 11th and between the 14th and 18th, but rain fell almost daily during the last week in most districts.

## ALBERTA.

Along the North Saskatchewan and Red Deer Rivers rain fell fifteen days or oftener, the heaviest falls occurring between the 4th and 7th, 14th and 17th. At several points more than one and a half inches fell in twenty-four hours about the 6th or 15th, while the total for the month was nearly twice the normal amount. In the country about the Bow and Belly Rivers conditions were much less pronounced, the total fall barely exceeding the normal in most instances, while there were local deficiencies.

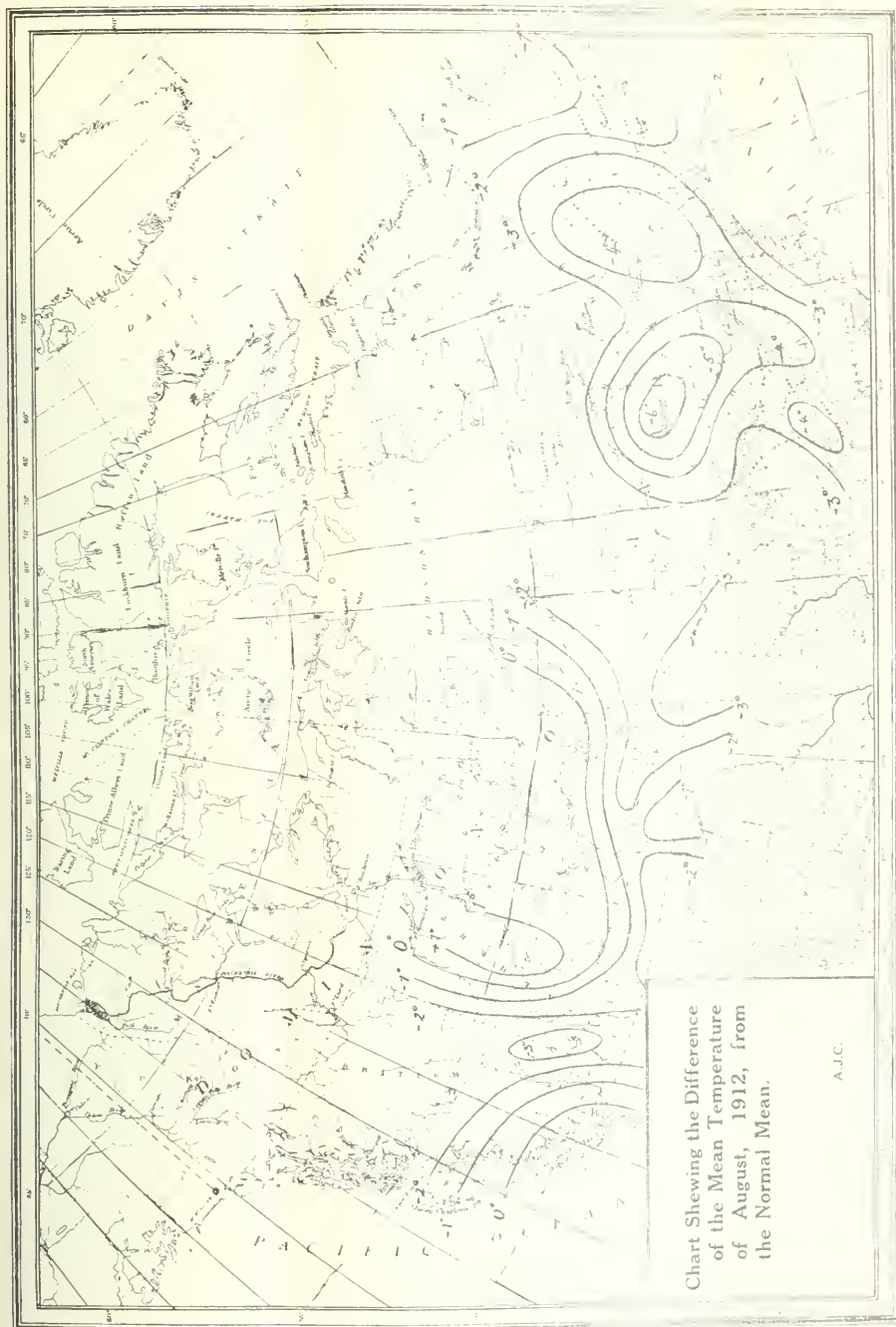
## SASKATCHEWAN.

In this Province rain occurred frequently, some places recording sixteen showery days. The amounts registered were not, however, so large as in Alberta, and although the normal amount had, at the end of the month, been everywhere exceeded, the excess was generally less than thirty per cent. of the normal.

## MANITOBA.

The distribution of precipitation in this Province during August presented some peculiar features. The frequency of the rainfall while, in the main, greater in the western districts, was very irregular over the whole area, stations in the eastern districts within short distances of each other showing differences of from 5 to 10 in the number of showery days. Thunderstorms were recorded on from 2 to 6 days at several stations on the Red River. The monthly totals were, however, considerably less than normal.





## ONTARIO.

In the Ramy River and Thunder Bay Districts precipitation conditions were identical with those of Manitoba, rain falling frequently but the total amount not quite equalling the normal. In the remaining portion of Ontario, however, rainfall was largely in excess of normal. The number of showery days ranged, in general, between ten and fifteen days, but at some places in Southern Ontario there were showers on from fifteen to twenty days. There were instances of more than twice the normal rainfall, and the average departure from normal was in excess of 70 per cent. Thunderstorms occurred during the month in all districts, but they were especially prevalent along the Upper St. Lawrence and Lower Ottawa Rivers.

## QUÉBEC.

Rain was recorded on from 12 to 18 days. At Quebec and Cap Rouge the total for the month was ten inches, which is approximately twice the usual August rainfall. Throughout the Province there was a general excess over normal, but there were local exceptions, as at Montreal, where rain was recorded on 15 days, but the aggregate did not exceed the normal. On the 10th and 11th rain fell to a remarkable depth, several places reporting 5 inches in 24 hours.

## THE MARITIME PROVINCES.

In New Brunswick the number of showery days ranged between 9 and 18, the differences from the normal amount being positive and more than 50 per cent. In Nova Scotia and Prince Edward Island, however, although showers were of frequent occurrence, the aggregates were slightly sub-normal.

## ATMOSPHERIC PRESSURE.

The mean values of the atmospheric pressure at the Telegraph Reporting Stations showed the pressure for August subnormal over the greater part of Canada, Northern Alberta alone giving a value in excess of the average. Negative differences were generally about 0.05 of an inch, and positive departures about 0.01 or 0.02 of an inch.

## HIGH AREAS.

Four areas of high pressure were sufficiently defined to admit of their paths being charted. They all first appeared in the northwestern portion of the continent, eventually passing over the Great Lakes. They were of the usual feeble summer type of anticyclones.

## LOW AREAS.

Eleven areas of low pressure were sufficiently defined to allow of their tracks being charted. Two first appeared to the northward of the Western Provinces, five in the North Pacific States, one in the Middle Pacific States, one in Lower California, one in Kansas, and one in the vicinity of Lake Erie. The general course of the areas was either over or to the northward of the Great Lakes, thence over Eastern Canada and Newfoundland. They were for the most part of moderate intensity, but at the same time they were attended by widespread rain areas.

## WINDS, AUGUST, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of Days of Force.	Number of Days of Force in 24 hours.	Direction of Wind.
BRITISH COLUMBIA.						
Victoria .....	5,890	30	20	1	1	S.W.
Point Garry.....	3967	10	20	1	1	E & W
ALBERTA.						
Edmonton .....	3725	20	19	1	1	N.W.
SASKATCHEWAN.						
Battleford .....	3451	15	20	1	1	E
Qu'Appelle .....	3875	15	20	1	1	E & S
MANITOBA.						
Winnipeg .....	6185	40	27	7	3	E.
The Pas.....	4395	30	20	1	1	E. & S.W.
ONTARIO.						
Pt. Arthur .....	6873	20	10	1	1	N.W.
Parry Sound .....	4419	25	10	1	1	S.W.
Woodstock .....	2930	17	15	1	1	W.
Guelph .....	5266	17	20	1	1	N.W.
Toronto .....	6473	17	20	1	1	E
QUEBEC.						
Montreal .....	7738	20	20	4	1	S.W.
Quebec .....	7182	20	20	7	1	N.E.
S. W. Anticosti .....	9688	20	20	10	7	S.E.
MARITIME PROVINCES.						
Pt. Escombard .....	8129	471	10	1	1	S & N.W.
Fredericton .....	1341	30	19	1	1	N.W.
St. John .....	5017	361	25	1	1	S.W.
Pt. Le Preux .....	6886	431	41	1	1	W.
Halifax .....	6870	502	30	1	1	S.W. & W.
Flat Point .....	8264	525	41	1	1	S.W.
Charlottetown .....	4112	311	20	1	1	S.W.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1912.

\*Stations not furnished with Registering Thermometers.

STATION				TEMPERATURE						PRECIPITATION									
	Latitude N	Longitude W	Elevation above sea level, in feet	Mean	Difference from average	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average	Heaviest fall in month	Days with .01 or more	No. of fair days	No. of auras	No. of thunderstorms	No. of fogs
<b>BRITISH COLUMBIA</b>																			
<b>S. Vancouver Island</b>																			
Alberni (Heaver Creek)	49 15 134 49		200	61.0	-4.2	17	62.0	21	40.0	27	22.5	3.23	+2.17	0.84	12	18		4	
Clayoquot	49 11 125 55		25	58.2	+1.1	15	59.0	21	45.0	27	13.8	4.55	+1.03	1.45	8	23			2
Cowichan (Tzouhalem)	48 25 123 42		150	61.7	—	6	84.2	22	45.0	27	20.0	2.35	—	0.80	9	22			
Nanaimo	49 10 123 57		125		—	—													
Nanose Bay	49 17 124 12		150	60.9	—	1	81.0	23-22	41.0	27	18.8	2.84	—	1.01	12	19			
Salt Spring Island	48 50 125 20		10.0	—	—	3	80.0	—	42.0	—	17.1	—	—	0.83	9	22		1	
Sooke	48 41 123 44		25	58.0	—	—	—	—	38.0	—	20.1	2.81	—	1.06	6	25			
Victoria	48 24 123 19		85	50.9	+0.3	20	81.8	—	41.2	—	16.9	3.26	+1.67	0.18	8	23			4
<b>N. Vancouver Island</b>																			
Holberg	50 29 128 18			50.2	—	4	79.8	23	43.1	27	18.0	2.38	—	0.85	6	25			
Seascope Bay	50 37 126 53			57.3	—	3	72.0	7-21	49.9	29	12.4	3.16	—	2.25	10	21			
Triangle Island	50 52 120 5		680	54.6	—	1	62.0	13	48.0	27	7.7	2.85	—	0.77	7	24			12
Winter Harbour (Quat. Sta.)	50 52 127 40			58.2	—	16	80.0	13	40.0	27	19.8	1.84	—	0.07					
<b>Lower Fraser River</b>																			
Agassiz	49 14 121 31		52	61.0	-2.6	23	85.0	13	40.0	28	33.1	7.84	+5.09	1.36	44	17			
Chilliwack	49 10 121 57		21	62.0	-0.4	10	85.0	—	37.0	28	19.4	5.12	+2.81	1.43	13	18			3
Hope	49 23 121 25		500	60.4	—	3	85.0	—	37.0	28	20.2	4.09	—	0.72	11	20			1
Ladner	49 05 127 4			59.5	+0.6	12	85.0	—	44.0	29	19.9	3.16	+1.04	1.05	8	23			
New Westminster	49 13 122 54		330	62.0	+0.5	25	84.4	—	46.8	28	17.2	6.43	+4.37	1.87	12	19			1
North Newton	49 12 122 2		50	63.6	+0.6	20	85.0	—	49.0	28	19.3	6.64	+4.38	3.06	10	21			2
Pemberton Hotelery	50 20 122 33			61.5	—	4	86.0	—	42.0	28	21.0	3.25	—	0.83	8	23			1
Ruskin (Stave Falls)	49 16 122 23		125	64.6	—	3	90.0	—	40.0	28	24.0	6.24	—	1.60	11	20			
Steveston (Garry Point)	49 21 123 17			59.4	+0.3	17	73.0	—	42.0	29	17.5	4.46	+3.29	1.37	10	21			1
Vancouver	49 17 123 5		130	61.5	+0.6	12	78.7	—	45.3	28	15.7	5.86	+4.07	1.41	11	20			2
<b>Upper Fraser River</b>																			
Baloue Lake	55 28 126 26																		
Barkerville	53 42 123 55		4380	50.9	-2.1	35	73.0	20	32.4	29	17.5	4.24	+1.16	3.87	16	15			
Chilcotin (Big Creek)	51 40 124 0		3100	54.4	—	14	82.0	22	31.0	29	23.8	1.17	-0.51	0.27	11	20			2
Fort St. James (Stuart Lake)	54 28 124 12		2280	54.0	—	19	77.5	9	25.0	29	26.1	2.96	—	0.92	6	22			
Hydruke	51 40 124 0			59.1	—	1	85.0	—	36.0	29	24.9	4.49	—	0.70	13	18			
Quesnel	52 59 122 30		1700	60.1	-0.1	17	80.0	22	38.0	29	25.1	1.94	+0.27	0.45	9	22			
<b>Okanagan Valley</b>																			
Bedley	49 35 120 10		1771	63.2	—	9	94.0	22	41.0	27	23.9	1.40	—	0.95	8	23			1
Bedley (Nickel Plate)	—	—	—	45.0	—	0	72.0	22	27.0	28	18.6	1.07	—	0.70	6	25			
Keremeos	—	—	—	65.1	—	5	86.0	22	46.0	17	18.1	1.01	—	0.54	6	25			2
Okanagan Mission (Kelowna)	49 15 119 29		1200	62.1	+1.4	14	85.9	23	43.0	29	22.8	1.62	-0.03	0.20	9	22			4
Penticton	49 29 119 35			62.1	—	5	88.6	23	40.0	29	22.5	1.13	—	0.56	10	21			
Princeton	49 29 120 29		1650	59.5	-2.7	18	89.0	7	31.0	28	28.5	3.08	+1.21	1.09	8	23			1
Summerland	49 57 119 0		1100	62.4	—	5	87.0	23	40.0	31	20.7	2.14	—	1.50	6	25			
Vernon (Goldstream Ranch)	50 14 119 15		1246	62.5	-3.1	19	89.0	22	37.0	29	26.3	1.19	+0.15	0.37	10	21			
<b>West Kootenay</b>																			
Crawford Bay	49 45 116 45		2000	60.2	—	1	81.0	8	39.0	30	22.8	2.44	—	0.60	11	20			1
Grand Forks	49 2 118 27			62.5	—	2	92.0	23	39.0	31	26.6	2.28	—	0.58	9	19			4
Greenwood	—	—	—	57.2	—	1	89.0	22	34.0	11	33.0	3.33	—	1.02	9	22			
Islands	49 52 117 0		1752	—	—	1	76.0	15	44.0	13-18	—	1.92	—	0.51	10	21			
Nakusp	—	—	—	59.2	—	1	82.0	22	46.0	29	20.1	4.81	—	1.07	17	14			2
Needles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nelson	49 20 117 21		1760	—	1.1	18	88.0	23	41.0	30	21.3	2.57	+0.67	0.51	15	16			2
Rossland	49 5 117 48		3410	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>East Kootenay</b>																			
Akamia	—	—	—	59.8	—	3	87.0	23	33.9	30	30.3	1.01	—	0.27	7	24			
Cranbrook	49 30 115 50		2684	62.4	-1.1	17	91.0	1	38.0	18-30	24.3	2.26	+1.19	0.92	10	15			1
Tobacco Plains (Elko)	49 1 115 5			58.2	—	3	80.0	1	38.0	25	21.2	1.82	—	0.47	8	23			2
Wilmer	50 34 116 11			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
<b>Thompson River</b>																			
Endorby	50 32 119 7		1180	63.3	-0.3	9	94.0	24	40.0	28	28.0	1.28	+0.12	0.40	9	22			1
Kamloops	50 41 120 29		1245	64.4	-3.7	20	87.4	22	42.8	29	21.8	2.09	+1.06	0.31	14	17			
Nicola Lake	50 9 120 39		2120	59.2	-4.7	17	82.0	23	39.0	28	22.7	2.03	+1.10	0.31	6	25			
Salmon Arm	50 42 119 35		1152	61.6	—	11	85.0	23	42.0	29	23.2	2.03	—	0.37	10	21			6
Salmon Arm (Esp. Farm)	—	—	—	62.4	—	2	87.0	23	42.0	30	24.0	2.83	—	0.70	8	23			
Tranquille	50 41 120 29			63.2	—	4	85.0	21-27	40.0	29	21.2	2.31	—	0.60	11	20			1
<b>North Columbia River</b>																			
Golden	51 16 114 55		2550	56.8	-1.1	19	81.0	22	37.0	16	24.4	3.92	+2.32	1.02	8	23			
Gleicher	51 14 117 29		4072	54.1	-0.8	14	74.0	9	34.0	28	30.9	8.06	—	0.37	10	16			
Revelstoke	51 0 118 6		1476	63.9	-0.3	12	82.0	22	43.0	30	26.7	4.03	+1.41	0.51	15	16			

## TEMPERATURE AND PRECIPITATION AT STATION - C-006 (0001) - 0111 - ADA, ALGONQUIN

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1912

\* Stations not furnished with Registering Thermometers

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet	TEMPERATURE.							PRECIPITATION.					Days with 40 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.								
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.														
<b>SASKATCHEWAN</b>																												
<i>Qu'Appelle River</i>																												
Broadview	50 23	102 32	1969																									
Brownhill (Greenhill)	50 23	102 53	1957	57.4	-2.5	18	82.0	22	35.0	20																		
Browlee	50 45	106 0																										
Crescent Lake	50 50	109 25	1658	58.4	+0.1	7	76.8	12	28.2	27	19.8	2.68	-0.78	0.17	14	17		3	7									
Estevan	49 12	103 4	1838	61.1	-0.5	11	80.4	11	23	41.0	33	19.6	2.63		1.73	6	25		1	1								
Fort Qu'Appelle				52.0			84.1	17	40.8	30	23.0	1.31		0.36	11	20												
Halbard Drummond	51 5	103 24		57.5			76.0	17	29.0	27	30	19.2	2.62		1.80	8	23											
Humboldt	52 12	105 9		57.3			79.0	23	34.0	30	23.2	2.73		1.00	6	25			2									
Imperial	51 22	105 23		56.6			83.0	23	39.0	25	22.1	1.73		0.47	9	22												
Indian Head	50 28	103 49	1924	57.7	-2.7	22	80.0	19	39.0	29	20.4																	
Mayar	49 43	102 2	2064																									
Moose Jaw	50 21	105 55	1759	61.5	-1.0	17	85.0	22	33.0	30	22.2	2.15	+0.71	0.62	10	21		1	2									
Mossburn	50 0	101 37	1881	57.8		11	80.0	11	37.0	31	19.6	1.53		0.48	6	25												
Munichster St Peter's Mission	52 0	105 0	1870	57.9	-0.5	7	77.0	9	24.6	28	16.4	4.02		0.90	6	25		3	4									
Pilger	52 25	105 9		58.8			79.0	22	38.0	30	19.3	2.77		0.62	13	18												
Ponca (Gateson)	50 20	105 0	1879	60.9	-0.1	16	82.0	22	39.0	25	21	23.4	2.22	+0.11	0.41	16	15		1									
Qu'Appelle	50 20	104 47	2115	59.6	-2.5	28	78.0	10	38.0	26	18.8	1.95	+0.09	0.50	11	20		2	2									
Quill Lake	52 4	104 11	1675	58.0			76.0	10	34.0	26	18.5	2.25		0.97	11	20												
Regina	50 27	104 37	1885	60.2	-1.0	26	81.0	22	36.0	26	22.0	1.87	+0.21	0.60	13	18			1									
Scrashburg				61.6			81.0	22	39.0	25	20.9	1.24		0.55	5	26												
Yarbo (Fairfield)	51 29	102 1																										
Yellow Grass	49 49	104 9		60.5		2	83.0	22	38.0	26	22.3	1.65		0.48	8	23		1	4									
Yorkton	51 11	102 29		59.0		3	78.0	12	40.0	2	21.8	3.96		1.25	11	20												
<i>S. Saskatchewan River</i>																												
Chapina	50 26	106 39	2292	59.5	-2.5	25	84.0	9	36.0	29	21.9	3.50		0.74	15	16		6										
East End (Divide)	49 31	108 49		57.9		5	81.0	9	33.8	30	25.6	1.34		0.45	5	26			3									
Kelmhurst (Saskatchewan)	49 21	109 29		60.6			87.0	2	37.0	31	27.0	1.38		0.43	7	24												
Larchmont (Hemlock)	49 54	107 27		59.5		2	84.0	10-25	37.0	30	26.4	3.12		0.95	12	19		5	2									
Mane Creek (Divide)	49 55	108 28	2700																									
Oliver	51 46	108 19																										
Rathmalen	51 20	108 57		59.4		2	85.0	10	29.7	30	21.9	2.37		0.56	12	18		4										
Swift Current	50 29	107 15	2179	61.8	-2.2	26	84.0	9	22	38.0	30	20.5	2.48	+0.50	0.68	11	20		2									
<i>N. Saskatchewan River</i>																												
Battleford	52 41	108 20	1650	61.8	-0.1	22	85.0	9	38.0	30	14.6	2.74	+0.76	0.83	11	20		1										
Lloydminster	53 18	110 0																										
Luskin	52 5	109 24		58.3		1	81.0	9	37.0	30	19.6	3.38		0.60	9	22			2									
Omaha Lake	53 52	109 59																										
Prince (Monte)	51 6	108 23	1760																									
Seatt (Ex Farm)	51 50	109 20		59.7		3	81.0	9	32.9	30	19.1	2.93		0.73	11	20												
Waseca	53 6	101 23		57.8		5	81.0	2	39.0	30	21.8	3.15		1.93	4	27												
<i>The Saskatchewan River</i>																												
Chungone (Stn Col.)	52 32	104 13		59.5		1	80.0	9	38.0	26	19.6	3.52		1.80	13	18												
Duck Lake	52 54	106 20																										
Malott	52 47	104 30		57.9	-1.7	5	78.0	10-11	38.0	30	19.8	2.23		0.55	11	20												
Prince Albert	50 10	106 0	1142	59.2	-0.2	27	81.0	27	29.0	27	20.5	3.75	+0.22	0.65	12	19		1	1									
Rosthern	52 49	103 28	1657	58.5		2	79.2	10-23	71.2	30	18.3	2.15		0.54	10	21												
Saskatoon	52 15	106 20	1571	60.8	-0.5	11	81.8	10	37.7	30	19.3	2.74	+0.57	0.92	13	18		6	1									
<i>Lower Saskatchewan River</i>																												
Cambourne House																												
Lost River				58.0		2	77.6	10-21	65.0	27	18.9	2.40		0.89	14	17												
<b>MANITOBA</b>																												
<i>Qu'Appelle and Assiniboine Rivers</i>																												
Avenue (St Albans)	49 42	99 35	1184	62.2	-2.2	27	87.5	11	37.0	3	22.8	1.10	-0.83	0.28	13	18		3										
Bossvoine	50 25	101 1	1703																									
Brandon	49 51	99 57	1176	60.0	-2.2	21	82.1	11	38.4	2	19.4	1.17	-0.74	0.20	18	13												
Carberry	49 52	99 20	1258																									
Carleton	49 31	98 0	822																									
Cypress River	49 33	99 3	1222	59.2		7	83.0	12	38.0	3	20.2	2.71		1.15	14	17			2									
Helltown	49 55	100 33	1490	59.3	-1.9	27	80.0	11	40.0	3	16.6	1.72	-0.60	0.30	12	19												
Manitowish	50 15	99 50	1599	59.6	-2.3	29	80.0	11	26.8	3	18.6	2.42	-0.30	0.32	17	14		4	6									
Naradine	49 24	99 48	1363	62.5		1	81.0	11	42.0	2	21.8																	
Ninaga	49 14	99 51	1649	59.0		3	83.2	11	37.6	7	20.5	4.76		1.90	11	20			1									
Pisson	49 11	101 5	1571	59.7		8	81.0	12	35.0	31	24.8	2.40		0.90	9	22												
Popeo-up	49 21	100 58	1490																									
Portage la Prairie	49 37	98 17		60.4	-2.0	29	85.0	12	39.0	3	18.9	1.34	-0.81	0.61	5	26												
Portage La Prairie 2	49 56	98 17		60.5		7	81.0	12	43.0	3	16.6	1.24		0.51	6	25												
Russell	50 50	101 20		57.9		10	78.9	12	41.6	6	22.1	1.76		0.82	9	22												
St-Vincent	49 36	98 40	1122	59.8	-1.1	17	85.0	11	38.0	3	18.1	2.93		0.36	13	18		3										
Virden	49 51	100 53	1454	56.9		7	84.0	12	36.0	19	31	29.0							1									
<i>Red River</i>																												
Albion	49 14	99 20		60.4	-2.0	19	86.0	11	31.0	4	21.1	1.92		0.38	15	15		6										
Arborea	49 11	98 6	978			8	82.0	12	38.5	4	17.6	2.40		0.61	8	23			3	12								
Oak Bank	49 57	96 42	809	57.6	-2.0	16	77.0	11	38.5	15	18.5	1.94	+0.11	0.68	5	26		2										
Stony Mountain	50 40	97 14	893	58.7	-0.8	30	82.0	12	37.2	31	24.3	0.93		0.20	3	28			5									
Winnipeg	49 53	97 7	790	60.2	-2.9	39	82.0	11	39.0	3	19.5	1.64	-0.70	0.73	13	18			2									



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1911.

\* Stations not furnished with Registering Thermometer.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE					PRECIPITATION				
				Mean.	Difference from average.	No. of over-cast days.	Highest.	Lowest.	Daily.	Amount.	Difference from average.	Highest fall in month.	Days with 61 or more.
MANITOBA—Continued													
<i>Dauphin Lake and River</i>													
Dauphin	51 8 16	2	957	58.8	—	2	77.0	12	40.0	4.31	26.6	0.94	1 24
Moose Horn Bay (Atkinsville)	51 15 49	35	710	58.7	—	5	77.6	12	52.7	5.74	0	0.92	14 17
Berens River	52 18 37	25	716	58.1	—	1	80.0	13	40.0	2.7	17.7	2.03	9 22
<i>Lake W. Winnipegosis</i>													
Swan River	52 6 101	15	1112	58.3	—	3	80.0	13	40.0	2.7	17.7	2.03	9 22
The Pas	53 49 101	15	860	58.3	—	3	80.0	13	40.0	2.7	17.7	2.03	9 22
ONTARIO—													
The Lake Superior Districts													
<i>Reiny River</i>													
Kenora	49 48 94	32	1102	56.3	—	10	80.0	11	40.0	17.2	1	1.15	1 19
<i>Thunder Bay</i>													
Kakabeka Falls	48 25 89	26	912	55.3	—	3	79.0	12	31.0	24.2	2.5	1.00	9 42
Port Arthur	48 27 89	12	644	57.5	—	1	79.0	12	30.0	17.1	15.1	0.84	13 18
Schreiber	48 50 87	15	533	56.1	—	1	77.5	11	41.0	1	30.0	0.74	12 19
<i>Algoma</i>													
Bruce Mines	46 18 83	35	595	50.5	—	5	81.0	12	47.0	1	18.0	4.2	1 54
Copper Cliff	46 30 80	53	.....	59.5	—	5	78.5	14	78.0	5.12	2.41	1.44	12 19
Porcupine	48 29 81	15	.....	56.3	—	2	80.0	12	26.0	2	27.1	—	—
Providence Bay	45 40 82	14	.....	57.1	—	1	75.0	15	40.0	27	19.6	1.82	1 1
White River	48 35 85	16	1252	54.9	—	2	77.5	12	28.0	1	27.0	1.20	2 41
<i>Nipissing</i>													
Cochrane	49 2 81	0	946	55.8	—	2	89.0	13	32.5	20	19.5	1.7	0.71
Haileybury	47 29 79	39	687	57.9	—	4	77.1	13	44.8	30	1.3	2.05	1 15
Montreal River	47 8 79	29	.....	56.0	—	2	78.0	12	29.0	11	24.5	2.38	0.71
<i>Upper Ottawa River</i>													
Rutherford (Lake Talon)	46 15 74	48	.....	58.1	—	18	82.0	13	70.0	1	21.7	3.36	1 20
Steele (Rockcliffe)	46 9 78	6	557	59.9	—	2	81.0	16	37.0	1	21.6	2.78	0 42
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>													
Almonte	45 12 76	13	390	60.7	—	1	87.0	13	47.0	20	18	1.7	1 19
Bloomfield	43 59 77	21	260	62.8	—	4	81.0	15	44.0	1	17.1	—	1 12
Hillier	43 13 76	20	285	63.0	—	1	89.0	22	70.0	40	29	2.08	13 18
Huntsville	44 56 75	57	.....	62.5	—	3	87.5	15	78.2	0	18.0	2.08	1 25
Montreal	45 56 75	57	.....	62.5	—	3	87.5	14	48.5	1	19.6	0.84	12 19
North Gower	45 8 75	43	.....	61.8	—	4	89.0	14	42	1	18	1.1	1 19
Ottawa	45 26 75	42	294	61.8	—	4	89.0	14	42	1	18	1.1	1 19
Renfrew	45 26 76	39	416	61.7	—	2	84.5	14	49.4	1	13	1.0	1 19
<i>Georgian Bay Counties</i>													
Barrie	44 23 79	41	839	53.5	—	3	89.0	26	41.1	1	17.0	1.97	1 40
Beattie	45 8 79	20	800	57.7	—	2	87.0	26	41.0	1	17.0	1.97	1 40
Coldwater	44 38 79	40	600	57.7	—	2	87.0	26	41.0	1	17.0	1.97	1 40
Collingwood	44 31 80	2	.....	61.7	—	2	86.0	14	37.0	8	21.2	4.2	0 17
Gravenhurst	44 54 79	20	.....	59.4	—	3	83.0	15	36.0	1	20	—	0.97
Huntsville	45 19 79	8	.....	59.9	—	6	81.0	26	23.0	20	17.0	—	—
Midland	44 14 79	33	750	63.0	—	5	85.0	15	38.0	28	21	1.61	1 19
Markdale	44 37 79	24	775	61.8	—	3	87.0	15	34.0	1	21.1	1.61	1 19
Orillia	44 37 79	24	775	61.8	—	3	87.0	15	34.0	1	21.1	1.61	1 19
Owen Sound	44 34 80	55	597	61.9	—	2	86.0	14	35.0	1	18.4	2.4	0 54
Perry Sound	45 19 80	0	635	61.9	—	2	86.0	14	35.0	1	18.4	2.4	0 54
Reneville	45 15 78	57	1038	58.4	—	5	79.0	17	27.0	0	21.1	1.63	0.86
Shelburne	44 5 80	47	.....	59.2	—	4	81.0	27	26.0	30	18.6	1.71	1 17
Uplands	45 48 79	25	.....	57.6	—	2	79.0	13	23.7	3	22	3.94	0.90
<i>Lake Huron Counties</i>													
Birmm	43 2 81	55	600	62.8	—	3	87.0	26	42.2	1	15.4	1.92	2 52
Cinton	42 32 81	37	.....	67.3	—	4	10.0	27	42.0	1	15.4	1.92	2 52
Goderich	43 45 81	41	.....	61.4	—	5	87.0	27	42.0	1	15.4	1.92	2 52
Lacknow	43 50 81	30	908	62.0	—	6	82.0	13	27.0	8	20.1	1.49	1 15
North Bruce	44 23 81	25	.....	60.8	—	8	84.0	11	20.0	48	—	4.28	1 15
Point Clark	44 5 81	44	595	—	—	—	—	—	—	—	—	2.01	0 28
Sarnia	42 59 82	24	598	61.5	—	3	84.1	14	40.2	0	11.1	0.8	1 15
Southampton	41 39 81	21	656	61.5	—	3	84.1	14	40.2	0	11.1	0.8	1 15
<i>Lakes St. Clair &amp; Erie, Niagara Peninsula</i>													
Chatham	42 23 82	12	595	67.2	—	1	91.0	21	46.0	10	19	1.05	2 25
Cottam	42 7 82	45	306	67.3	—	1	91.0	21	46.0	10	19	1.05	2 25
Grimsby	43 13 71	36	.....	65.8	—	3	89.0	19	45.0	1	17	1.1	1 15
Peter Island	41 50 82	35	585	75.8	—	2	88.0	19	45.0	1	17	1.1	1 15
Port Burwell	42 39 81	35	592	63.0	—	4	89.0	11	42.5	1	17	1.1	1 15
Port Dover	42 27 80	13	635	63.0	—	4	89.0	11	42.5	1	17	1.1	1 15
Port Stanley	42 40 81	12	592	66.8	—	0	1	38	8	13.4	9	2.78	0 25
St. Catharines	43 9 79	17	317	64.9	—	1	87.0	25	41.0	0	16.8	81	1 13
Stoney Creek	43 15 79	24	292	64.9	—	1	87.0	25	41.0	0	16.8	81	1 13
Wallaceburg	42 35 82	24	.....	64.4	—	3	85.0	17	41.0	0	16.8	81	1 13
Welland	42 59 79	17	577	64.4	—	3	85.0	17	41.0	0	16.8	81	1 13
Windham Centre	42 20 83	4	625	66.0	—	2	89.0	27	50.0	1	16.8	1.05	0 23
Windsor	42 20 83	4	625	66.0	—	2	89.0	27	50.0	1	16.8	1.05	0 23



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA AUGUST 1901

\*Stations not furnished with Register of Observations.

STATION			Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION						
	Latitude	Longitude		Mean	Difference from average	Yr's Observations	High (°)	Low (°)	Range (°)	Mean (°)	High (°)	Difference from average	Baromet. fall in inches	Days with rain or snow	No. of Thunder storms	
NOVA SCOTIA—																
Antigonish	45 38	61 59	50	58.6	—	32	80.0	15	34.1	54	18.7	—	—	—	—	—
Halifax	44 39	63 36	88	41.9	-2.7	37	80.0	11	14.8	59	16.1	-0.78	1.25	15	11	—
Kentville	45 3	—	40	59.4	—	1	85.0	13	38.6	50	2	—	1.16	12	20	—
New Germany	—	—	—	50.8	—	1	86.0	4	36.0	50.1	23.5	—	0.51	4	7	—
Parabola	45 22	61 19	40	—	—	—	—	—	—	—	—	—	—	—	—	—
Port Hastings	45 39	61 22	45	63.7	-2.2	20	82.0	13	44.0	18	—	-2.25	—	1.21	5	20
*Sable Island, E. Pt	43 58	59 46	25	62.2	—	29	68.0	21	51.0	—	—	-0.44	0.51	6	25	—
Sydney	46 10	60 10	35	51.2	-1.4	78	80.0	14	19.0	37	14.8	-0.56	0.56	15	16	—
Turo	45 22	63 18	77	47.0	-6.4	36	82.0	15	15.0	4	22.2	-1.31	1.30	14	17	—
Whitehead	45 15	61 8	20	58.9	—	28	66.0	29	59.0	—	—	4.97	—	0.91	8	23
Windsor	44 59	64 6	90	11.9	-1.6	10	82.0	15	12.0	1	37.0	-2.74	—	6.3	17	14
Wulfeille	45 7	64 29	—	61.9	-2.2	13	85.0	4	44.0	31	56.7	-0.96	0.40	0.60	13	18
Yarmouth	43 50	56 2	65	59.2	-1.6	54	73.5	11	12.7	20	15.5	-0.69	-1.09	1.28	8	24
P. E. ISLAND—																
Charlottetown	46 14	63 16	38	62.5	-2.1	36	81.0	14	47.0	28	11.2	-0.42	-1.17	0.75	12	49
Charlottetown Exp. Farm	46 14	63 7	75	61.7	—	2	81.0	11	45.0	—	14.3	-0.68	—	0.72	19	12
Hamilton	46 25	63 48	—	62.3	-1.15	15	81.0	15	46.0	—	14.1	-0.75	-0.82	1.22	12	14
NEWFOUNDLAND—																
*Amour Point	51 28	55 51	—	18.1	—	29	58.0	36.5	11.0	—	—	—	—	0.80	2	20
Burin	47 0	55 10	27	56.3	—	4	70.0	4	11.0	—	1.00	4.87	—	0.71	18	13
*Cape Norman	51 38	55 52	—	48.6	—	28	61.0	12	14	—	2.5	—	—	1.12	8	24
Fogo	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—	—	—
*Point Riche	50 42	57 25	35	57.1	-0.5	30	67.0	24	47.0	21	—	-2.55	0.12	1.26	6	22
Port aux Basques	47 35	59 10	27	55.4	—	4	67.0	10	41.5	18	21.0	-0.16	—	0.84	25	6
St. John's	47 34	52 42	125	57.1	-2.2	79	73.0	7	40.9	19	15.4	-4.38	-0.73	1.11	18	15
LABRADOR																
North West River	—	—	—	52.6	—	—	73.0	8	10	31.0	31	15.7	—	—	—	—
BERMUDA—																
Prospect	32 17	64 46	151	77.8	-1.6	22	85.8	7	67.4	18	16.6	-7.76	+1.78	1.66	18	10

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING AUGUST, 1912.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS.
	Amount in inches.	No. of Days 0.1 or over.	No. of Fair Days	Heaviest Fall in Month.	Date	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date	
BRITISH COLUMBIA—										
Alkali Lake	2.46	13	18	0.72	8					
Annis (Cahoe Point)	1.86	13	18	0.38	15					
Armstrong	1.36	8	23	0.27	30					
Beaver Lake	2.57	2	24	0.78	15					
Barriere Valley (Louis Cr.)	2.64	14	17	0.60	11					
Comitlam	5.55	5	26	1.50	15					
Denman's Island	3.66	13	18	1.17	16					
Ferguson	4.65	13	18	1.05	10					
Goldstream Lake	2.89	10	21	0.84	16					
Hydraulic	3.62	12	20	0.66	9					
Hornby Island	4.51	6	25	1.57	12					
Jordan River	3.21	10	21	0.78	16					
Jordan River (Bear Creek)	3.82	11	20	0.90	16, 31					
Little Qualicum	2.12	7	24	1.15	15					
Monte Creek	1.30	5	26	0.40	11					
Nans Harbour	0.33	7	24	0.07	7-29					
Shawinigan Lake	2.39	9	22	0.83	16					
Wycliffe	0.57	4	27	0.28	4					
ALBERTA—										
Hardo	2.58	9	22	0.53	27					
Bismark	4.17	10	21	0.95	26					
Bruderheim										
Buttern Lake	3.82	16	15	1.12	27					
Brooks	0.54	10	21	0.14	16					
Campsie	2.64	12	19	0.68	27					
Coldwell	1.52	6	25	0.77	4					
Dawson	2.59	9	22	0.70	25					
Dunstable	3.81	19	12	1.34	4					
Grassy Lake	3.25	4	27	1.25	2					
Lumping Pound	2.97	11	20	0.70	17					
Loch Sloy										
Lyndon	2.00	6	25	1.28	4					
Lanham	2.30	3	28	1.60	11					
La Pearl	3.32	11	20	0.78	6					
Macleod	0.89	3	28	0.35	3					
Maverick	0.99	6	25	0.65	4					
Nately										
Nanton	1.06	9	22	0.37	16					
Ogotsko	1.45	6	25	0.69	16					
Pelisko	1.07	6	24	0.60	3	*	1	*	20	
Ponoka	2.82	6	25	1.02	3					
Sion										
Seven Persons	0.49	2	29	0.25	18					
Tilley										
SASKATCHEWAN—										
Aberfeldy	2.39	8	23	1.02	26					
Gull Lake	2.00	6	25	0.60	4					
Gull Lake (Pks. Swift Cr.)	3.53	9	22	0.83	27					
Last Mountain	3.17	11	20	1.56	27					
Maple Creek	3.75	11	20	1.25	16					
Willow Creek (Battle Cr.)	1.84	8	23	0.71	19					
MANITOBA—										
Cartwright	2.13	5	22	0.55	19					
Deloraine	1.42	8	23	0.80	18					
Norquay (Swan Lake)	1.81	16	13	0.30	30					
Rapid City	2.14	14	17	0.70	19					
Rose Bank	2.14	11	20	0.40	17					
ONTARIO—										
Deer Park	3.31	16	15	0.59	8					
Dutton	5.58	12	16	1.51	18					
Emsdale	5.34	15	16	0.55	11					
Fort Frances	5.52	12	19	0.64	28					
Georgetown	5.21	19	12	1.25	13					
Grantham	3.53	19	12	0.71	18					
Grand Valley	5.36	13	12	1.31	18					
Indian Chutes (Elk Lake)	3.25	20	11	0.64	10					Frost on 15th
MacCoe	3.58	7	24	1.64	10					
Nydenham	5.00	6	25	2.00	8					
Strathroy	5.27	14	17	0.66	8					
Watford	4.79	13	18	0.74	11					
Westport	4.17	12	19	1.01	9					
Westminster	5.31	8	23	1.46	11					
Wooler	3.29	—	—	—	—					Frost on 6, 16, 30
Wesley	5.27	17	14	1.29	9					
Watteawyl	3.56	14	17	1.06	10					
Warton	2.81	9	22	0.61	11					
QUEBEC—										
Lucerne	5.25	5	26	2.18	24					
Perkins Mills	5.14	10	21	1.20	24					
Quinze Dam	4.62	7	24	2.29	22					
Timiskaming	2.59	10	21	0.52	10					
NEW BRUNSWICK—										
Point Escomine	4.35	10	21	1.74	23					
NOVA SCOTIA—										
Big Mashamish Lake (Ma-										
honey)	2.05	2	29	1.87	15					
Kentville	4.50	12	19	1.06	15					
Milton	4.34	6	25	1.35	19					
Mashamish River (Mahone)	3.05	2	29	1.85	15					
Nappan	4.82	10	21	1.40	15					
South Alton	4.29	10	21	1.21	12					
White Rock	3.67	13	18	0.71	12					

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF AUGUST, 1912.

a Barometer not reduced to sea level.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE			Mean relative humidity	Mean amount of rain	No. of days completely clouded	DIRECTION AND FROM										WIND		Direction of observations	Mean value per hour	Maximum value	Type and force in ft. min.									
				Mean reduced.	Highest	Lowest				N	N E	E	S E	S	S W	W	N W	N	N E															
<b>BRITISH COLUMBIA—</b>																																		
Atlin	51	35 133° 48	2240	29.94.30.10	29.94.40.72		81	7	4	0	4	4	98	0	1	1	0	0	0	0	0	0	0	0	0	0								
Barkerville	51	2 121° 35	4180	29.94.20.2	29.94.50.74		81	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Kamloops	50	42 124° 21	1245	29.87.30.1	29.55.0.64		65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
a Nanaimo	49	10 123° 37	125																															
Prince Rupert	54	18 120° 18	170	29.95.30.2	29.93.0.85		88	8	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Triangle Island	50	52 124° 5	980	30.05.31.2	29.57.0.71		90	7	10	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
a Tranquille	50	41 120° 29		28.5.28.8	28.35.0.4		70	17	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Vancouver	49	17 123° 5	136	29.97.20.1	29.55.0.4		81	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
Victoria	48	24 124° 19	85	29.97.19.1	29.55.0.67		76	4	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0									
<b>YUKON—</b>																																		
Dawson	64	4 129° 21	1200																															
<b>ALBERTA—</b>																																		
Banff	51	10 115° 31	4542	29.90.30.24	29.52.0.72			4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Calgary	51	2 114° 2	3380	29.85.30.18	29.41.0.7			0	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Edmonton	53	33 113° 30	2158	29.84.40.22	29.42.0.80			1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Medicine Hat	50	1 110° 57	2161	29.84.30.32	29.45.0.87			0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>SASKATCHEWAN—</b>																																		
Battleford	52	41 108° 20	1020	29.85.30.22	29.46.0.76		78		4	0	7	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Moose Jaw	50	21 105° 35	1750	29.84.30.29	29.47.0.75		81		4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Prince Albert	53	10 106° 0	1432	29.85.30.27	29.41.0.82		85		2	0	5	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0								
Qu'Appelle	50	30 103° 47	2115	29.88.30.27	29.55.0.72		85		5	2	6	12	6	0	0	0	0	0	0	0	0	0	0	0	0	0								
Swift Current	50	20 107° 45	2439	29.90.30.25	29.49.0.76		78		0	0	6	10	13	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>MANITOBA—</b>																																		
a Aweme (St. Alban's)	49	42 99° 33	1180																															
Manitowish	50	15 99° 50	1609	29.92.20.29	29.57.0.7			0	0	1	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
The Pas	53	49 101° 15	890	29.88.30.31	29.47.0.87		81		2	11	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Winnipeg	49	53 97° 7	760	29.94.30.39	29.60.0.79			12	13	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>ONTARIO—</b>																																		
Cochrane	49	2 81° 0	946	29.96.29.24	29.24.0.6			7	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Haliburton	47	2 79° 3	687	29.94.30.28	29.32.0.56			11	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Kingston	41	13 76° 2	283	29.94.30.30	29.45.0.85			7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
London	42	59 81° 13	808	29.85.30.27	29.48.0.79			7	15	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Ottawa	45	26 75° 42	224	29.92.30.28	29.38.0.90			2	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Perry Sound	45	19 80° 0	635	29.93.30.27	29.40.82			7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Port Arthur	48	27 89° 12	648	29.96.30.29	29.42.0.87			0	9	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Port Stanley	42	40 81° 15	592	29.93.30.29	29.40.76			8	10	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Stonhampton	44	30 81° 21	650	29.85.30.27	29.43.84			0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Stonhampton	46	9 78° 6	557	29.85.30.27	29.41.98			12	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Toronto	43	40 79° 24	357	29.94.30.28	29.17.0.88			2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
White River	48	35 85° 16	1232	29.93.30.31	29.28.1.03			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Woodstock	43	8 80° 47	580	29.94.30.26	29.47.79		80	8	15	0	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>QUEBEC—</b>																																		
Father Point	48	51 68° 19	20	29.88.30.33	29.44.0.88			7	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Montreal	45	30 73° 35	187	29.91.30.27	29.43.0.84			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Quebec	46	48 71° 13	296	29.90.30.28	29.46.0.82			7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>NEW BRUNSWICK—</b>																																		
Chatham	47	5 65° 29	31	29.91.30.45	29.47.88			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Fredericton	45	57 66° 36	164	29.92.30.29	29.54.88		81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
St. John	45	17 66° 4	70	29.83.30.36	29.53.182			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>NOVA SCOTIA—</b>																																		
Halifax	41	29 63° 36	88	29.53.30.30	29.57.0.81			7	10	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Sedney	45	10 60° 10	33	29.92.30.29	29.48.0.88			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
a Wolfville	45	7 64° 20	29	29.84.30.27	29.51.1.29			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Yarmouth	43	50 66° 2	65	29.96.30.38	29.50.78			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>P. E. ISLAND</b>																																		
Charlottetown	46	11 71° 10																																

MEAN DURATION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
AUGUST 1913.

STATION	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria				.08	.31	.50	.56	.63	.71	.76	.75	.67	.59	.51	.17			
Salmon Arm			.02	.24	.50	.57	.58	.66	.65	.61	.57	.51	.49	.45	.33	.07		
Nanaimo																		
Vancouver			.02	.21	.37	.38	.51	.55	.59	.57	.64	.62	.58	.55	.35	.07		
Agassiz				.11	.26	.36	.45	.52	.62	.54	.54	.50	.45	.35	.14			
Tranquille			.04	.12	.31	.52	.58	.60	.55	.61	.62	.56	.48	.39	.20			
Summerland			.09	.37	.48	.52	.54	.63	.68	.61	.64	.61	.54	.52	.27			
Kamloops			.08	.33	.53	.57	.63	.65	.64	★	.63	.66	.59	.59	.42	.09		
Edmonton			.06	.39	.47	.57	.64	.65	.64	.55	.52	.60	.49	.39	.35	.07		
Lethbridge			.16	.46	.62	.70	.71	.67	.62	.72	.75	.71	.59	.51	.78	.14		
Lacombe			.04	.19	.39	.49	.61	.62	.63	.67	.62	.57	.50	.43	.31			
Medicine Hat			.06	.29	.58	.69	.70	.73	.74	.61	.54	.58	.44	.45	.31	.03		
Fort Dunvegan				.04	.14	.40	.49	.49	.59	.58	.56	.55	.60	.49	.33	.03		
Fort Vermilion																		
Battleford			.06	.39	.49	.54	.54	.55	.59	.60	.59	.63	.63	.62	.52	.18		
Indian Head			.01	.09	.57	.43	.48	.42	.49	.48	.37	.42	.38	.29	.14			
Mooseaw			.10	.34	.48	.53	.59	.56	.62	.57	.51	.53	.57	.45	.38	.05		
Scott		.03	.23	.37	.59	.60	.67	.66	.67	.63	.63	.54	.37	.20	.06			
Rosethorn			.03	.30	.49	.50	.54	.63	.63	.57	.54	★	.52	.52	.27	.04		
Brandon				.03	.22	.41	.37	.41	.44	.17	.51	.46	.35	.15				
Winnipeg		T	.13	.21	.40	.42	.50	.54	.57	.58	.53	.52	.48	.26	.04			
Haybury			.17	.24	.30	.36	.39	.46	.43	.36	.37	.36	.37	.25	.03			
Woodstock			.03	.16	.35	.42	.53	.47	.48	.51	.47	.52	.24	.11				
Lindsay			.03	.27	.43	.47	.41	.39	.43	.47	.49	.41	.35	.17				
Barrie			.14	.28	.46	.44	.41	.43	.39	.43	.48	.38	.34	.20				
Toronto			.19	.45	.45	.47	.48	.52	.47	.48	.55	.65	.49	.29	.14			
Kingston			.01	.22	.39	.48	.46	.47	.45	.46	.48	.46	.37	.39	.20			
Ottawa		T	.18	.38	.42	.52	.62	.61	.59	.59	.58	.52	.47	.27	.02			
Montreal			.02	.28	.47	.57	.56	.62	.64	.65	.65	.53	.52	.43	.21			
Cap Rouge				.04	.22	.38	.43	.51	.57	.54	.57	.47	.35	.28	.10			
Quebec		T	.18	.34	.43	.59	.55	.58	.51	.45	.36	.24	.06					
Sherbrooke			.26	.40	.40	.47	.49	.52	.48	.50	.52	.37	.30	.24	T			
Fredericton			.03	.24	.37	.49	.50	.57	.59	.61	.56	.56	.45	.19				
Charlottetown			.14	.30	.42	.47	.53	.62	.48	.49	.44	.45	.37	.16				
Nappan			.07	.36	.49	.74	.52	.56	.52	.57	.67	.61	.53	.34	.03			

	Victoria	Salmon Arm	Nanaimo	Vancouver	Agassiz	Tranquille	Summerland	Kamloops	Edmonton	Lethbridge	Lacombe	Medicine Hat	Fort Dunvegan	Fort Vermilion	Battleford	Indian Head	Moose Jaw	Scott	Rosethorn	Brandon	Winnipeg	Haybury	Woodstock	Lindsay	Barrie	Toronto	Kingston	Ottawa	Montreal	Cap Rouge	Quebec	Sherbrooke	Fredericton	Charlottetown	Napawin	
Registered duration in hours	193	193		186	151	173	202	220	201	240	190	206	164	...	215	131	192	193	190	118	161	137	133	135	134	171	152	179	194	138	134	153	160	151	177	
Percentage of possible duration %	43	43		41	34	39	45	49	44	54	42	46	35		47	29	43	43	42	27	36	29	31	31	31	40	35	41	48	32	31	35	36	35	41	
Difference from average %	-14	-		-	-11	-	-	-	-	-	-	-	-		-9	-20	-	-	-	30	-24	-	24	-23	-31	-20	-21	-11	-10	-	-	-	-11	-	-	
Maximum percentage in one day %	89	84		85	80	81	85	87	83	93	86	87	81		90	70	86	83	86	68	79	89	80	81	84	88	86	79	93	77	71	84	70	90	85	
Date of maximum	20	22		12	21	6	17	5	21	22	14	23	21		19	9	22	1	7	30	4	30	16	30	27	29	16	13	13	20	20	17	29	29	20	
Number of days completely clouded	4	5		3	9	0	5	6	2	1	5	0	6	....	4	3	3	3	6	4	7	5	5	6	3	4	3	1	3	4	4	3	7	4	7	2

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF AUGUST, 1912

STATION	DIRECTION OF WIND FROM									C	1000 feet bar at Quebec station
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
ALBERTA—											
Athabasca Landing.....	2	0	1	1	5	4	15	3	0	31	
Didsbury.....	1	3	2	5	6	5	1	8	0	31	
Edmonton.....	5	4	2	11	6	1	5	9	16	38	
Fort Resolution.....	1	5	9	3	7	2	29	4	2	62	
Halkirk (Emsburg).....	5	5	5	15	2	12	9	9	0	62	
Hillsdown.....	0	1	0	17	1	5	0	38	0	62	
Loveland.....	2	8	5	10	2	7	9	8	11	62	
Macleod.....	0	0	1	0	3	0	34	0	24	62	
Paken (Victoria).....	1	8	9	2	2	19	14	5	2	62	
Siam.....	5	4	12	10	6	7	30	8	0	82	
Ranfurly (Wentfield).....	3	2	16	13	9	2	27	10	11	93	
SASKATCHEWAN											
Chaplin.....	0	5	0	12	0	0	0	14	0	31	
Crescent Lake.....	2	2	3	7	4	2	5	2	4	31	
Estevan.....	3	3	4	4	1	3	4	5	31		
Grenfell (Brownhill).....	1	1	4	14	2	1	0	8	10	46	
Indian Head.....	7	3	8	15	12	9	17	14	8	93	
Larchmont (Glenbrian).....	0	2	8	14	0	16	12	16	0	62	
Moosomin.....	0	1	12	7	6	5	0	0	0	31	
Muenster (St. Peter's Monastery).....	0	16	0	1	0	18	0	27	0	62	
Onion Lake.....	0	1	0	9	0	2	4	1	0	20	
Pense (Gatesgarth).....	0	1	0	9	0	2	7	4	0	31	
Wasceca.....	0	2	2	9	0	7	7	4	0	31	
MANITOBA—											
Berens River.....	0	12	13	13	1	10	8	4	24	85	
Brandon.....	0	1	29	34	4	2	2	21	0	93	
Hillview.....	0	1	29	34	4	2	2	21	0	93	
Moose Horn Bay (Atkinsville).....	0	13	2	12	8	2	2	7	16	62	
Morden.....	10	3	2	5	3	1	4	3	0	31	
Stony Mountain.....	0	0	0	0	0	0	0	0	0	0	
ONTARIO—											
Agincourt.....	2	2	13	12	11	24	6	22	1	93	
Alton.....	8	1	12	3	18	4	40	7	0	93	
Beatrice.....	4	0	0	8	4	3	2	14	58	93	
Birnham.....	7	13	8	16	5	2	4	4	3	62	
Clinton.....	0	0	3	1	8	8	5	27	0	62	
Cottam.....	15	0	7	3	23	8	6	0	0	62	
Gravenhurst.....	10	1	4	11	14	8	16	16	19	93	
Lindsay.....	11	9	1	8	10	14	3	16	21	93	
North Bruce.....	3	0	7	4	31	10	20	18	0	93	
Orillia.....	3	0	1	2	6	10	3	6	0	31	
Owen Sound.....	0	0	0	0	0	0	0	0	0	0	
Point Clark.....	16	4	3	7	9	4	15	4	0	62	
Port Dover.....	7	2	5	2	2	3	4	6	0	31	
Scarboro Junction.....	0	0	0	0	0	0	0	0	0	0	
Stoney Creek.....	2	9	28	3	2	25	19	5	0	93	
Uplands.....	10	0	4	0	5	0	12	0	0	31	
Wexford.....	1	0	4	1	1	1	6	16	30		
QUEBEC—											
Abitibi.....	17	6	7	9	13	7	24	10	0	93	
Anticosti, W. Pt.....	10	5	1	1	41	3	10	22	0	93	
Anticosti, Heath Point.....	6	7	5	13	5	10	7	25	15	93	
Bicquet.....	0	24	0	0	4	19	46	0	0	93	
Brome.....	18	0	2	0	18	8	11	3	3	93	
Cape Chatte.....	3	3	12	0	0	1	47	0	21	93	
Cape Magdalen.....	6	0	0	5	18	2	7	34	21	93	
Chicoutimi.....	0	19	0	7	0	6	0	25	36	93	
NEW BRUNSWICK—											
Dalhousie.....	0	0	8	1	0	0	16	1	5	31	
Moncton.....	0	2	0	6	0	9	2	10	2	31	
Pt. Lepreaux.....	5	6	10	3	7	20	12	18	0	81	
Sussex.....	0	1	0	0	0	0	0	1	16	31	
NOVA SCOTIA—											
Kentville.....	1	0	0	2	5	7	10	6	0	31	
Port Hastings.....	1	2	0	8	2	7	0	11	0	31	
Sable Island, E. Pt.....	0	0	0	5	5	65	0	18	0	93	
Truro.....	0	0	0	0	0	0	0	0	0	0	
Whitehead.....	13	0	5	2	18	11	9	2	0	93	
PRINCE EDWARD ISLAND—											
Hamilton.....	2	0	0	0	6	16	5	2	0	31	



*Thunder recorded—*

1. Georgetown, Wooler, Emsdale, Port Dover, Almasippi, Haliburton, Providence Bay, Aurora, Birnam, Agincourt, Stoney Creek, Ferguson, Rossland, Nakusp, Nelson, Grand Forks, Chilcotin, Peace River Landing.

2. Westport, Perkin's Mills, Cottam, Haliburton, Providence Bay, Birnam, Madoc, Lucknow, Brantford, Point Clark, Ottawa, Stonediff, Port Stanley, Montreal, Creston, Chilcotin.

3. Westport, Kentville, Clinton, Brome, Annis, Summerland, Salmon Arm, Grand Forks, Chilcotin, Sion, Hillsdown.

4. Peterboro', Brome, Agincourt, Beatrice, Parry Sound, Kingston, Gull Lake, Rathmullen, Jumping Pound, Pekisko, Sion, Campsie, Fort George, Fort Resolution.

5. Rapid City, Chicoutimi West, Brome, Chicoutimi, Fredericton, Kingston, Saskatoon, Rathmullen, Pambrun, Chatham, N.B., Jumping Pound, Halkirk, Hillsdown, Waitefield, Alton.

6. Cartwright, Rapid City, White Rock, Morden, Almasippi, Sussex, Treherne, Mistassini, Brome, Minnedosa, Montreal, Chatham, N.B., St. John.

7. White Rock, Aweme, Morden, Almasippi, Treherne, Lucknow, Bruce Mines, Point Clark, Minnedosa, Port Stanley, Southampton, Charlottetown.

8. Madoc, Agincourt, Toronto, Kingston, Stonediff, Port Stanley, Montreal, Hydraulic, Annis, Alkali Lake, Little Quaticum, Rossland, Fort George, Pemberton Hatchery, Keremeos, Summerland, Salmon Arm, Quesnel, Princeton, Okanagan Mission, North Nicomen, Nicola, Hedley, Chilliwaek, Crawford Bay, Chilcotin, Alberni, Alton, Hope.

9. Port Dover, Providence Bay, Brantford, Bruce Mines, Peterboro', Agincourt, Fort Qu'Appelle, Southampton, Hydraulic, Campsie, Chilliwaek, Halkirk, Pakan, Hillsdown, Macleod, Lunnford.

10. Deer Park, Georgetown, Emsdale, Haliburton, Lucknow, Bruce Mines, Hillier, Beatrice, Toronto, St. Walburg, Fort Qu'Appelle, Campsie, Chaplin, Uplands, Hydraulic, Dunstable, Bismark, Keremeos, Salmon Arm, Okanagan Mission, Daysland, Hillsdown, Lunnford, Waitefield, Alton, Crescent Lake, Uplands.

11. Cartwright, Georgetown, Strathroy, Emsdale, D'Israeli, Aweme, Almonte, Lake Edward, Almasippi, Orillia, Haliburton, Bloomfield, Paris, Sion, Macleod, Lunnford, Waitefield, Madoc, Treherne, Mistassini, Chicoutimi West, Montreal River, Montague, Peterboro', Hillier, Brome, Chicoutimi, Agincourt, Aitkensville, Ottawa, Kingston, Stonediff, Gull Lake, Saskatoon, Munster, Chaplin, Port Stanley, Montreal, Quebec, Elko, Salmon Arm, Okanagan Mission, Alton, Crescent Lake, Rutherglen.

12. White Rock, Almasippi, Oakbank, Mistassini, Brome, Aitkensville, Ottawa, Kingston, Minnedosa, Kindersley, Quebec, Manouan Crossing.

13. White Rock, Pointe Riche, Port Hastings, Almasippi, Lucknow, Point Lepreaux, Cochrane, Southampton, St. John, Harrington Harbour, Charlottetown, Halkirk, Moncton, Rutherglen, Manouan Crossing.

14. Georgetown, White Rock, D'Israeli, New Germany, Haliburton, Mistassini, Chicoutimi West, Shawinigan Falls, Brome, Chicoutimi, Beatrice, Fredericton, Stonediff, Montreal, Quebec, Sydney, Moncton, Manouan Crossing.

15. White Rock, Sussex, Kentville, Windor, N.S., Fredericton, Pambrun, Chatham, N.B., St. John, Yarmouth, Okotoks, Charlottetown, Annis, Mayeroff, Wilmer, Elko, Salmon Arm, Okanagan Mission, Nelson, Enderby, Bella Coola, Macleod, Waitefield, Peace River Landing.

16. Saskatoon, Munster.

17. Birnam, Charlottetown, Dunstable, Oyen.

18. Port Stanley, Hydraulic, Dunstable, Pemberton Hatchery.

19. Treherne, Port Stanley, Hydraulic, Pemberton Hatchery.

20. Kakabeka Falls, Lucknow, Point Clark.

21. Westport, Georgetown, Port Dover, Brondfield, Madoc, Paris, Laflamme, Agincourt, Toronto.
22. Deer Park, Westport, Georgetown, Almonte, Lake Edward, Port Dover, Oakbank, Aurora, Birnam, Madoc, Chicoutimi West, Clinton, Lucknow, Brantford, Agincourt, Beatrice, Toronto, Alton, Fort Qu'Appelle, Montreal, Yarmouth, Campsie, Sion, Paken, Fort Resolution, Hamilton, Ont.
23. Westport, Warton, Georgetown, Perkins' Mills, Sussex, Windsor, N.S., Chatham, Point Lepreaux, Fredericton, Ottawa, Rathbun, Lost River, Pambrum, Chaplin, St. John, Hydraulic, Halkirk, Owen, Alix, Hillsdown, Ursa.
24. Westport, Wesley, Georgetown, Emsdale, Wattenwyl, Almonte, Haliburton, Providence Bay, Renfrew, Madoc, Montreal River, Clinton, Montague, Lucknow, Bruce Mines, Peterboro, Hillier, Point Clark, Agincourt, Beatrice, Parry Sound, Toronto, Kingston, Kindersley, Rathmullen, Pense, Fort Qu'Appelle, Chaplin, Southampton, Uplands, Chiloquin, Alton, Uplands.
25. Westport, Georgetown, Emsdale, Elk Lake, Perkins Mills, Port Dover, Orillia, Haliburton, Birnam, Clinton, Paris, Brantford, Bromie, Montreal, Point Clark, Stony Creek, Parry Sound, Ottawa, Kingston, Stonediff, Minnedosa, Port Arthur, Kindersley, Port Stanley, Rossland, Alton, Ursa, Rutland.
26. Deer Park, Westport, Georgetown, Strathroy, Wooler, Wattenwyl, Elk Lake, Perkins Mills, Lake Edward, Port Dover, Orillia, Haliburton, Aurora, Paris, Waitfield, Birnam, Renfrew, Madoc, Kakabeka Falls, Mistassini, Montreal River, Clinton, Montague, Lucknow, Brantford, Peterboro, Hillier, Agincourt, Stony Creek, Beatrice, Parry Sound, Toronto, Ottawa, Kingston, Stonediff, Port Stanley, Montreal, Halkirk, Daysland, Sion, Hillsdown, Alton, Ursa.
27. White Rock, Almasippi, Kentville, Windsor, N.S., Shawinigan Falls, Point Lepreaux, Fredericton, Chelraue, Saskatoon, Elko, Muenster, Lost River, Pambrum, St. John, Charlottetown, La Poudre, Jumping Pound, Campsie, Chiloquin, Alberni, Alix, Hillsdown, Waitfield.
28. Aweme, Massett, Saskatoon, Pambrum, Fort Qu'Appelle, Chaplin, Quebec, Hydraulic, Amis, Okotoks, Rossland, Creston, Wilmer, Salt Spring Island, Garry Point, Salmon Arm, New Westminster, Grand Forks, Chiloquin, Alberni.
29. Cartwright, Rapid City, Morden, Almasippi, Saskatoon, Lost River, Shawinigan Lake, Nakusp, Elko, Quesnel, Sion, Alix, Crescent Lake.
30. Saskatoon, Hydraulic, Hillsdown.
31. Georgetown, Goderich, Birnam, Clinton, Paris, Lucknow, Brantford, Bruce Mines, Stony Creek, Saskatoon, Port Stanley, Hydraulic, North Nicomen, Grand Forks, Chilliwaek, Alberni, Hamilton, Ont.

*Auroras recorded:—*

- 1.
- 2.
- 3.
- 4.
5. Agincourt III, Schreiber IV.
6. Agincourt II.
7. Sion IV.
8. Schreiber IV.
- 9.
10. Deloraine.
- 11.
- 12.
- 13.
- 14.
- 15.
16. White Shore Lake III.
17. Peace River Crossing.
- 18.
- 19.
20. Sion IV, Waitefield III.
21. Aitkensville IV.
- 22.
- 23.
24. Fredericton II.

## FORECASTS FOR AUGUST 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1272. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Right.	No. Partly.	No. Not.	Per centage.
Alberta.....	81	7	14	4	88.4
Saskatchewan.....	81	40	13	6	84.6
Manitoba.....	82	35	12	8	81.7
Lake Superior.....	113	75	13	11	75.2
Lower Lake Region.....	12	8	15	2	88.8
Georgian Bay.....	110	34	20	7	88.8
Ottawa Valley.....	103	58	12	4	90.4
Upper St. Lawrence.....	134	8	10	5	90.4
Lower St. Lawrence.....	116	3	18	5	87.9
Gulf.....	114	63	23	1	88.6
Maritime Provinces West.....	115	54	2	1	90.4
Maritime Provinces East.....	115	60	17	5	88.2
Total.....	1272	490	104	38	87.2

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
Sept. 27, 1912.



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

SEPTEMBER, 1912

No. 9

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

The mean temperature on South Vancouver Island was 56°, less than 1° above average, and on North Vancouver Island 55°. The highest temperature of the month was about 78° and occurred between the 13th and 15th. At the majority of the stations the lowest recorded was about 40°.

Along the Lower Fraser River the mean was about 56°, or practically average. Between the 11th and 17th, 80° was exceeded at most places, while between the 23rd and 27th minima of about 35° occurred at places at some distance from the coast.

Along the Upper Fraser the mean was 49°, extreme maxima ranging between 70° and 78°. Frost occurred between the 19th and 28th, Fort George reporting a minimum of 21°.

Of the districts in the Southern Interior the Okanagan and Thompson River Valleys showed the highest mean temperature, 54°, while that of West Kootenay was 51°, of East Kootenay 48°, and of the stations on the North Branch of the Columbia, 48°, all about 3° lower than average. At most places in the Okanagan Valley 80° was exceeded at least once during the month, but in the other districts 80° was not generally recorded. Several places reported 2° to 5° of frost between the 24th and 29th.

### ALBERTA.

The mean temperature was 46° except along the Bow River where it was 48°. In the latter district the difference from average was about 4° below. The highest temperatures of the month were registered in the Athabasca River district, on the 11th, 80° and 81°. The highest temperature of the southern districts was 78°, recorded at Calgary on the same date. From the 24th to the 28th there were severe night-frosts, and although the lowest in most cases was 20°, yet there were a few instances of greater severity, as at Brooks, in the Bow River district, which reported a minimum of 12° on the 29th.

## SASKATCHEWAN.

Mean temperatures were about 4° or 5° below average. Along the Qu'Appelle River, the Forks and the North Branch of the Saskatchewan River, the mean temperature was 47°, but along the South Branch of the Saskatchewan River the mean temperature was but 45°. The highest temperature of the month occurred between the 10th and 12th and ranged between 75° and 78°. From 10° to 20° of frost were recorded on the 27th, 28th and 29th in all districts and locally on the 15th, 16th and 23rd.

## MANITOBA.

Mean temperatures along the Qu'Appelle and the Assiniboine Rivers were about 50°, or 3° less than average, while along the Red River the mean was 52°, or about 1° below average. The highest temperatures occurred on the 3rd, 4th, 6th, 11th and 12th and along the Red River ranged from 80° to 86°. In Western Manitoba frost was in general more severe than in Eastern Manitoba.

## ONTARIO.

In the Rainy River District the mean temperature was lower than average, but over the remainder of Ontario temperatures were in nearly all instances higher than average. In Algoma and Nipissing the mean was 56° or 2° higher than average. In the Georgian Bay counties and the East Central counties the mean was 59° or about 1° above average. In the West Central counties and those bordering on Lakes St. Clair, Erie and Ontario the mean temperature was about 63° or from 2° to 3° above average. The highest temperatures recorded in some cases reached 95° and occurred about the 6th and 10th. No heavy frosts occurred during the month.

## QUEBEC.

Along the middle St. Lawrence the mean was 55° or about 1° below average; along the lower St. Lawrence 49° or about 3° below average, while in the Northern Districts the mean was 52°. 75° was not generally exceeded during the month, while except in the extreme northern districts there was no heavy frost.

## MARITIME PROVINCES.

The mean temperature of the month was 54°, which is from 2° to 3° below average. The highest temperature recorded in these provinces was 79° at St. Stephen, N.B., on the 8th, and the lowest 28° at Kentville, N.S., on the 29th.

## PRECIPITATION.

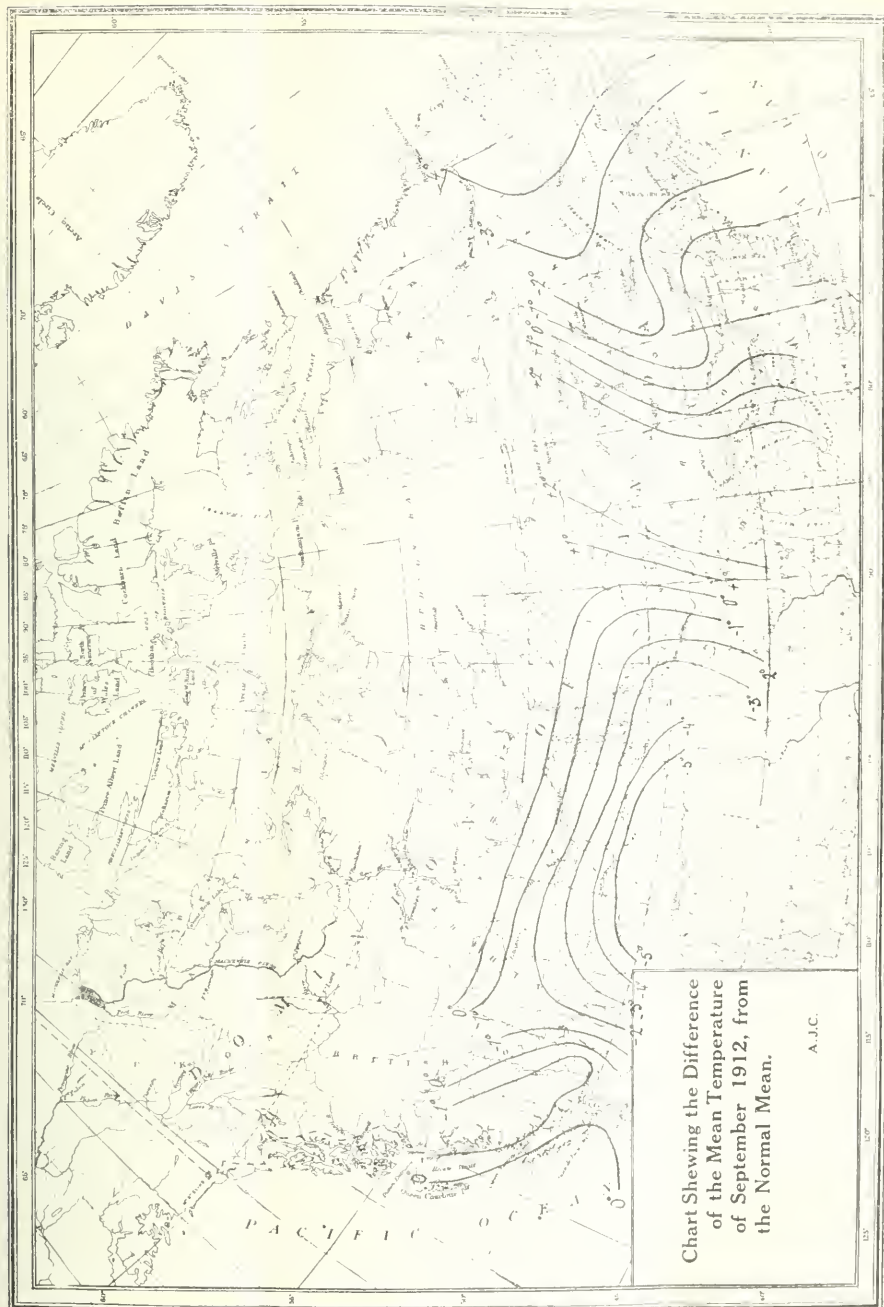
## BRITISH COLUMBIA.

On South Vancouver Island the rainfall was two and a half inches or one inch less than average, while on North Vancouver Island the total was 5 inches. Along the lower Fraser the fall was 2 inches, or one and a half inches less than average, while along the upper Fraser River the amount recorded was about one inch, or two inches less than average. In the districts of the southern interior rain fell on an average of five days totalling about 1 inch or less than half an inch below normal.

## THE WESTERN PROVINCES.

In Alberta along the North Saskatchewan River rain fell on 7 days and totalled one inch; along the Red Deer River on 9 days and amounted to an inch and a half; along the Bow River on 8 days amounting to 2 inches, while in the Athabasca and Peace River districts rain was recorded on from two to five days amounting to about half an inch.





In the Province of Saskatchewan the normal rainfall was exceeded by about 30%. The rainfall along the Qu'Appelle averaged a little more than 2 inches in depth as also along the North Saskatchewan River, while about the Forks of the Saskatchewan and the Lower Saskatchewan the rain fell on 11 days and totalled between two and three quarters and four inches.

In Manitoba the rainfall was very heavy, occurring on 10 days and averaging between 4 and 6 inches or from 2 to 4 inches more than normal. In several cases between 2 and 3 inches were registered in 24 hours.

#### ONTARIO.

Locally in the Georgian Bay counties there was a small deficiency, but over the remainder of the province the normal rainfall was exceeded by about 2 inches. The greatest amount recorded, at Lucknow in Huron County, was 8 inches or, 5 inches more than the normal for that place.

#### QUEBEC.

In south-western Quebec conditions were much the same as in Ontario, an excess of between 3 and 4 inches having been recorded, but in Eastern Quebec there was a deficiency amounting to about one and a half inches.

#### MARITIME PROVINCES.

Rain fell on 7 days and averaged two and three-quarter inches over the whole area of these provinces. This is equivalent to half an inch less than normal.

### ATMOSPHERIC PRESSURE.

The results obtained at the telegraphic reporting stations indicate that the mean atmospheric pressure for September exceeded the normal throughout Canada except over Southern Ontario, where the values were subnormal. In the Western Provinces the excess was generally about 0.07 of an inch, and in Quebec and the Maritime Provinces about 0.03 of an inch. Negative departures in Ontario were about 0.02 of an inch.

#### HIGH AREAS.

As many as nine areas of high pressure were charted for the month. Five first appeared in the northern portion of British Columbia, three on the United States Pacific States Coasts and one passed into Eastern Quebec and the Maritime Provinces from Labrador. Five areas travelled over the Great Lakes, two to the southward, while one lost its identity after reaching Kansas. The systems were for the most part quite feeble.

#### LOW AREAS.

Nine areas of low pressure were charted. Six first appeared over the northwestern portion of the continent; one in the upper Mississippi Valley and two in the Gulf of Mexico. The general track of the areas was over or in close proximity to the Great Lakes, thence over or to the northward of the Maritime Provinces. The systems were usually very widespread and of little energy, but attended by a large amount of cloudy and showery weather.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 17' W.) on Sept. 5th, 1917.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—738 mm.

Temperature—23 C.

Direction of Flight at Beginning—Northwest.

Fell 17.0 km. S. 60 E.

Maximum Height—14.4 km.

Minimum Temperature—-67 C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees	
G.L. 3	738	23	
.5	720	23.0	21.5
.75	700	23.0	20.0
1.0	679	22.0	21.0
1.5	640	19.0	18.0
2.0	602	16.0	15.0
2.5	567	13.0	12.0
3.0	532	9.0	8.0
3.1	525	8.0	7.0
3.5	501	7.5	5.0
3.8	485	8.0	5.0
4.0	471	6.0	4.5
4.5	443	2.5	1.0
5.0	416	1.0	2.0
5.5	390	1.5	5.5
6.0	366	8.5	-10.0
6.5	343	12.5	
7.0	321	-14.5	
7.5	300	-17.0	18.0
8.0	280	2.5	23.0
8.5	262	21.0	-26.0
9.0	243	28.0	-30.5
9.5	227	32.5	-34.5
10.0	212	36.5	-38.0
11.0	181	-15.0	16.0
12.0	155	51.5	55.5
13.0	132	61.0	
13.3	127	64.0	
13.6	120	65.0	63.0
14.0	112	66.0	
14.4	105	67.0	

## WINDS, SEPTEMBER, 1912

PROVINCES AND STATIONS	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION.
BRITISH COLUMBIA.							
Victoria . . . . .	7681	222	23	1	5	12	NE & N
Point Garry . . . . .	5780	464	32	1	5	13	NW.
ALBERTA.							
Edmonton . . . . .	3144	258	19	1	4	4	NW.
Calgary . . . . .	3386	328	27	1	4	5	N.
SASKATCHEWAN.							
Battleford . . . . .	5325	600	33	2	4	7	NW.
Qu'Appelle . . . . .	6983	452	33	1	8	8	N
MANITOBA.							
The Pas . . . . .	5762	419	23	2	5	11	N & SW
Winnipeg . . . . .	7546	466	23	2	5	11	N
ONTARIO.							
Port Arthur . . . . .	6487	342	26	1	5	9	NW.
Parry Sound . . . . .	4136	325	21	1	1	5	W
Sou. Hampton . . . . .	5928	351	20	1	1	13	SW.
Woodstock . . . . .	2370	181	14	1	1	1	W.
Guelph . . . . .	4692	422	33	1	10	5	W
Toronto . . . . .	6884	613	33	1	10	5	L.
QUEBEC.							
Quebec . . . . .	7973	789	40	2	13	9	NE.
Father Point . . . . .	5990	405	31	1	8	8	W
Anticosti S.W. Pt. . . . .	8786	734	41	3	17	4	NW
MARITIME PROVINCES							
Pt. Escombard . . . . .	9493	671	39	4	11	9	NW.
Fredericton . . . . .	3797	239	17	1	3	10	NW.
St. John . . . . .	4939	342	25	3	3	9	SW.
Pt. Lepreau . . . . .	6726	438	32	3	10	9	W.
Halifax . . . . .	7988	415	29	4	12	17	NE.
Flat Point . . . . .	16473	762	54	4	16	7	N. & NE.
Charlottetown . . . . .	3321	220	15	1	1	1	N.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, 1906.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.					PRECIPITATION.					Days with rain or more.	No. of auroras.	No. of thunderstorms.	
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Days.	Mean daily range.	Amount.	Difference from average.				Highest fall in month.
BRITISH COLUMBIA—																	
S. Vancouver Island																	
Alberni (Beaver Creek)	49 15	124 49	300	59.1	+ 1.3	17	89.0	13	35.0	19	27.26	2.06	-0.80	0.60	7	23	
Clayoquot	49 11	125 55	27	57.0	+ 1.4	13	77.0	15	42.0	2	21.7	4.73	-2.33	2.46	8	22	
Cloose				56.9	—	1	78.0	13	43.0	23	26.4	5.51	—	12.71	1	24	
Cowichan (Tzouhalem)	48 25	123 42	170	55.5	—	6	79.0	13	36.5	24	23.2	1.56	—	0.91	15	25	
Nanaimo	49 10	123 37	125	54.8	- 0	12	77.3	13	39.8	3	18.1	2.03	-0.03	0.19	10	23	
Nanoose Bay	43 17	124 12	130	55.2	—	1	78.0	13	40.0	4	28.21	1.27	—	0.41	1	23	
Salt Spring Island	48 50	123 20		55.7	—	2	76.0	13	11.0	3	24.17	1.92	—	1.14	6	24	
Sooke	48 41	123 44	25													1	
Victoria	48 24	123 19	85	57.2	+ 0.6	20	78.4	14	41.7	24	18.6	1.66	1.74	0.24	7	25	
N. Vancouver Island																	
Holberg	50 20	128 18		56.3	—	4	80.0	15	44.4	27	15.0	3.66	—	0.79	12	18	
Swanson Bay	50 37	126 53		54.5	—	4	75.0	13	47.0	2	11.3	7.51	—	1.91	10	16	
Triangle Island.	50 52	129 5	680	53.1	—	1	68.0	14	15	46.0	28.73	3.26	—	0.91	12	18	
Winter Harbour (Quatsino).	50 32	127 40		53.4	+ 0.1	18	75.0	15	39.0	25	27.18	3.22	2.15	1.51	10	20	
Lower Fraser River																	
Agassiz	49 14	121 31	52	56.4	+ 1.9	22	81.0	14	17	33.0	3	30.2	2.50	2.63	0.78	9	21
Chilliwack	49 10	121 57	21	56.7	- 0.4	10	84.0	13	31.0	4	29.0	1.23	—	1.01	9	50	
Hope	49 23	121 25	500	56.0	—	3	81.0	13	39.5	19	21.7	0.50	—	0.74	10	25	
Ladner	49 05	123 4		54.1	- 0.4	11	76.0	11	23.0	21	22.3	1.85	-0.09	0.85	9	21	
New Westminster	49 13	122 51	330	57.5	- 0.3	25	80.0	13	14	41.8	5	19.3	2.14	-1.37	0.91	7	23
North Newmen	49 12	122 2	59	57.2	+ 0.5	20	84.0	13	40.0	3	19.0	1.33	-3.50	0.49	5	25	
Pemberton Hatchery	50 20	122 33		54.7	—	5	84.0	12	35.0	6	27.4	1.39	—	0.73	4	26	
Ruskin (Stave Falls)	49 16	122 23	125	56.8	—	3	80.0	13	39.0	24	25.20	2.88	—	1.02	5	25	
Steveston (Garry Point)	49 21	123 17		53.5	- 0.3	17	72.5	15	35.0	27	17.5	1.99	0.55	0.73	6	24	
Vancouver	49 17	123 5	136	53.5	+ 0.8	12	76.0	14	42.9	4	16.9	2.84	-1.48	1.50	8	22	
Upper Fraser River																	
Babine Lake	55 38	126 26		47.9	—	3	75.0	13	16	29.0	19	23.6	1.60	—	0.70	3	27
Barkerville	53 02	121 35	4180	42.9	-1.5	24	66.0	11	14	26.0	28	19.1	1.14	2.52	3	23	
Chilcoot (Big Creek)	51 40	123 0	3100	46.6	—	9	71.6	4	23.0	28	27.3	1.25	—	0.58	6	24	
Fort George				49.3	—	1	77.0	11	21.0	27	29.4	0.55	—	0.21	6	21	
Fort St. James (Stuarts Lake)	54 28	124 12	2280														
Hydraulic				51.9	—	1	79.0	11	14	30.0	26	17.9	0.61	—	0.25	5	25
Quesnelle	52 59	122 30	1700	52.0	- 0.1	17	78.0	15	28.0	22	21.27	2.73	0.10	-1.08	0.22	7	23
Okanagan Valley																	
Healey	49 35	120 10	1771	55.8	—	9	84.0	12	31.0	2	25.3	0.58	—	0.29	5	25	
Healey (Nickel Plate)																	
Keremeos				57.2	—	5	83.0	13	37.0	29	20.8	0.70	—	0.39	4	26	
Kelowna (Okanagan Mission)	49 14	119 29	1200	52.5	- 2.6	13	75.0	13	32.0	29	23.9	0.85	-0.35	0.46	5	25	
Pentteton	49 29	119 35		53.7	—	6	74.6	13	32.5	29	21.7	1.37	—	0.58	5	25	
Princeton	49 29	120 29	1650	51.8	- 2.2	18	80.0	11	12	27.0	4	38.31	0.49	0.33	0.28	4	26
Summerland	49 57	119 0	1100	54.2	—	6	84.0	14	36.0	3	29.10	1.74	—	0.82	3	27	
Vernon (Coldstream Ranch)	50 11	119 15	1246	53.0	- 2.8	19	80.0	12	33.0	4	25.4	1.20	-0.69	0.28	4	26	
West Kootenay																	
Crawford Bay	49 45	116 45	2000	50.8	—	3	70.0	11	12	32.0	28	21.4	1.21	—	0.42	6	24
Creston				50.6	—	1	75.0	12	29.0	28	22.8	1.99	—	0.91	1	24	
Grand Forks	49 2	118 27		49.3	—	2	81.0	12	15	37.0	28	28.8	1.11	—	0.79	4	26
Greenwood				49.3	—	2	82.0	12	21.0	23	25.37	1.12	—	0.79	3	27	
Howser				52.2	—	1	74.0	14	38.0	28	29.18	1.25	—	0.48	9	21	
Kaslo	49 52	117 0	1752														
Nakusp				49.3	—	1	72.0	12	13	29.0	29	21.8	1.11	—	0.45	8	22
Needles																	
Nelson	49 29	117 21	1760	52.9	- 3.2	10	77.0	11	31.0	27	23.3	1.29	-0.48	0.28	4	26	
Rossland	49 5	117 48	3400	50.2	—	9	77.0	12	35.5	23	17.4	1.86	—	0.98	4	26	
East Kootenay																	
Akamina																	
Cranbrook	49 30	115 50		47.0	—	4	87.0	11	19.0	11	29.8	0.56	—	0.16	6	24	
Tobacco Plains (Elko)	49 1	115 5	2684	45.7	- 4.4	15	78.0	13	28.0	24	22.5	2.14	-0.68	0.55	8	22	
Wilmer	50 34	116 14		46.5	—	3	70.0	12	28.0	25	21.1	1.75	—	0.84	7	23	
Thompson River																	
Ashcroft				56.4	—	1	83.0	12	35.5	27	21.8	0.48	—	0.73	6	24	
Enderyby	50 32	119 7	1180	52.6	—	0	80.0	12	29.0	27	21.0	0.82	—	0.41	8	22	
Kamloops	50 41	120 29	1235	55.4	- 1.6	20	81.6	2	51.0	22	22.5	0.86	-0.13	0.59	5	25	
Nicola Lake	50 9	120 39	2142	50.1	- 2.2	16	75.0	13	31.0	28	22.3	0.97	-0.02	0.52	4	26	
Salmon Arm	50 42	119 35	1152	52.4	—	7	76.0	10	13	39.0	28	25.8	1.21	—	0.59	5	25
Salmon Arm (Exp. Farm)				52.8	—	2	77.0	11	13	32.0	27	21.7	0.73	—	0.38	7	25
Tranquille	50 41	120 29		55.4	—	4	82.0	12	34.0	27	21.8	0.68	—	0.49	4	26	
North Columbia River																	
Golden	51 16	115 55	2550	47.6	- 2.3	11	76.0	12	28.0	28	25.7	1.02	-0.41	0.45	5	25	
Glacier	51 14	117 29	4072	44.9	- 1.2	9	65.0	1	20	30	4.9	19.5	2.30	—	0.50	8	22
Revelstoke	51 0	118 6	1476	52.0	- 0.8	13	77.0	12	32.0	4	25.24	1.49	1.88	0.37	8	22	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, '12

\* Stations not furnished with Registering Thermometers

STATION	Latitude N	Longitude W.	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION									
				Mean	Difference from average	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range.	Amount.	Difference from average	Heaviest fall in month.	1 Days with 0.1 or more.	1 No. of fair days.	1 No. of auroras.	1 No. of thunderstorms.	1 No. of fogs.
BRITISH COLUMBIA - Con.																			
North Coast																			
Bella Coola	52 40	126 54	150	55.2	+ 1.2	14	92.0	15	32.0	10	27.3	0.85	-2.76	0.27	11	10	...	...	...
Khatada	54 18	130 18	170	53.8	—	1	78.0	11	37.0	22-23	15.4	7.04	—	1.19	18	12	...	...	...
Prince Rupert	54 18	130 18	170	54.8	—	3	76.0	14-15	40.0	22	13.0	8.39	—	2.59	14	16	...	...	3
Stewart	53 1	130 1	215	51.0	—	2	70.0	15	31.0	27	16.9	6.85	—	2.05	10	20	...	...	...
Queen Charlotte Islands																			
Ikeda Bay	52 17	131 7	5	57.6	—	5	69.0	6-28	34.0	4	6.8	3.35	—	1.55	4	26	...	...	1
Masset	53 58	132 9	30	57.4	+ 0.1	15	65.0	13-18	42.0	19-24	12.1	3.91	+0.05	0.95	14	16	...	...	...
Yukon Boundary																			
Atlin	59 35	133 38	1240	46.5	—	6	68.0	14	26.0	22	13.5	0.51	—	0.42	5	25	2	...	...
YUKON—																			
Carcross	60 11	154 34	2171	46.3	—	6	68.0	15	21.0	22	17.8	0.47	—	0.29	6	24	...	...	...
Dawson	61 4	139 29	1290	45.8	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
MACKENZIE																			
Ft. Resolution	51 0	113 9	840	48.6	—	...	78.0	16	25.0	22	17.4	0.12	—	0.07	2	28	...	...	...
ALBERTA —																			
N. Saskatchewan River																			
Daysland	55 52	112 17	...	47.5	—	9	75.0	10-11	18.0	18	22.1	1.14	—	0.46	7	23	...	...	1
Edmonton	53 33	113 30	2158	49.0	- 1.3	29	78.0	11	22.0	26	26.6	1.12	-0.38	0.39	8	22	1	...	4
Endrege	52 0	112 0	2505	45.7	—	2	71.0	11	19.2	27	21.6	0.88	—	0.65	4	26	...	...	...
Galt Edge	52 59	110 43	...	45.3	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
Halkirk (Embsburg)	52 17	112 10	...	45.3	—	5	66.5	10	22.0	28	25.8	1.16	—	0.51	10	20	...	...	2
Loveland	52 45	111 59	...	45.0	—	...	...	...	...	...	...	...	—	0.57	7	23	...	...	...
Pokan (Victoria)	54 0	112 31	...	45.0	—	...	71.1	11	13.6	28	25.8	0.69	—	0.34	4	26	...	...	2
Remfry (Wheatfield)	53 29	111 38	2090	45.8	—	...	72	10	16.0	28	24.7	1.39	—	0.47	13	17	6	...	...
Son	52 58	113 23	2180	44.8	—	1	72.0	11	19.0	24-28	29.6	0.83	—	0.36	7	23	2	...	...
Wetaskiwin	52 58	113 23	2180	44.8	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
The Red Deer River																			
Alix	52 24	113 10	...	46.1	—	...	73.0	12	21.0	24	22.5	1.58	—	0.57	10	20	...	...	1
Delia	51 38	112 25	...	45.6	—	...	69.4	11	24.2	25	24.2	2.25	—	0.93	6	24	...	...	2
Dickson	51 40	114 8	...	48.0	-2.5	19	72.0	11	26.0	28	22.7	2.20	—	0.62	8	22	...	...	...
Edkville	52 24	114 22	3364	44.5	—	5	75.0	10	18.0	24	26.9	2.44	—	0.84	10	20	...	...	...
Harmattan	51 45	114 23	...	45.8	—	...	71.0	11	18.0	24	22.9	0.77	—	0.27	9	21	1	...	1
Hills town	52 14	113 29	3590	45.8	—	...	71.0	11	18.0	24	22.9	0.77	—	0.27	9	21	1	...	1
Laemmle	52 58	113 44	...	46.4	—	5	73.8	11	20.8	24	26.9	1.25	—	0.35	8	22	...	...	...
Oyen	52 16	113 49	2986	45.7	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
Red Deer	51 30	113 11	...	45.7	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
Threehills Creek	51 30	113 11	...	45.7	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
The Bow River																			
Berry Creek	50 34	111 54	...	46.7	—	1	76.0	18	12.0	29	29.3	1.78	—	0.77	7	23	...	...	...
Brooks	51 2	114 2	3389	46.3	-3.4	28	72.0	11	25.0	15-29	22.2	2.80	+1.56	1.07	10	20	...	...	2
Calgary	49 12	114 2	...	46.7	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
Cardston	49 12	113 18	...	46.7	—	...	...	...	...	...	...	...	—	...	...	...	...	...	...
Furman (Phayle Creek)	50 59	112 54	2652	47.0	-3.2	10	77.0	11	22.0	29	28.2	0.35	—	0.10	6	24	...	...	...
Gleichen	50 35	113 53	3334	46.6	—	6	72.0	12	20.0	29	27.1	2.55	—	1.11	6	24	...	...	...
High River	50 16	113 26	...	46.5	—	6	79.0	17	23.0	26	33.9	3.91	—	2.03	8	22	...	...	...
Lawrence (Parkland)	49 42	112 51	2961	47.1	—	5	76.7	18	22.1	28	26.5	2.61	—	1.19	10	20	...	...	...
Lethbridge	49 43	112 51	...	48.5	-4.5	18	74.5	12	26.0	28	25.7	2.01	+0.88	0.61	8	22	...	...	...
Lethbridge (Exp. Farm)	49 43	113 24	3128	48.5	-4.5	18	74.5	12	26.0	28	25.7	2.01	+0.88	0.61	8	22	...	...	...
Macleod	50 1	110 37	2161	51.5	-4.6	28	78.6	11	20.0	28	25.7	1.34	+0.53	0.52	8	22	...	...	...
Medicine Hat	50 0	114 4	3750	47.2	-4.2	14	73.0	18	20.0	24	23.8	1.89	—	0.48	7	23	...	...	...
Pincher Creek	50 6	112 34	...	47.9	—	2	74.0	17	21.0	26	24.5	1.68	—	1.09	6	24	...	...	...
Strathmore	50 6	112 34	...	47.9	—	2	74.0	17	21.0	26	24.5	1.68	—	1.09	6	24	...	...	...
Sundhill	50 6	112 34	...	47.9	—	2	74.0	17	21.0	26	24.5	1.68	—	1.09	6	24	...	...	...
Rocky Mountains																			
Banff	51 10	115 34	4542	43.9	-2.5	16	73.1	11	23.4	28	24.0	1.03	-0.72	0.17	13	17	...	...	...
Blairmore	49 40	114 30	4225	43.9	-2.5	16	73.1	11	23.4	28	24.0	1.03	-0.72	0.17	13	17	...	...	...
Athabasca River																			
Athabasca Landing	51 43	113 17	1650	46.9	-0.1	10	71.6	11	18.0	24	31.2	0.72	—	0.36	5	25	...	...	...
Campuse	51 43	113 17	...	45.4	—	1	78.5	11	14.4	29	32.6	0.35	—	0.28	4	26	...	...	11
Lanmore	54 33	114 19	...	45.9	—	3	79.6	11	18.0	25	33.1	0.52	—	0.26	3	27	...	...	1
Pembina	54 12	114 0	...	53.0	—	4	78.5	14	28.0	25	32.8	—	—	—	—	—	—	—	—
Peace River																			
Beaver Lodge	55 29	119 24	...	—	—	—	61.0	12	21.0	28	—	0.21	—	0.08	2	28	...	...	2
Dawson	55 55	118 35	1305	—	—	—	81.0	11	9.0	21	37.3	0.99	—	0.10	5	27	...	...	...
Fort Vermilion	58 27	116 3	...	46.2	—	—	78.5	11	9.0	27	37.3	3.43	—	0.80	3	27	1	...	1
Fort Vermilion (2)	58 27	116 3	...	46.2	—	—	78.5	11	9.0	27	37.3	3.43	—	0.80	3	27	1	...	1
Peace River Crossing	56 15	117 15	...	48.4	—	5	82.0	11	17.0	26	31.2	0.59	—	0.28	2	28	...	...	...
Spirit River	55 40	118 47	2400	—	—	—	...	...	...	...	...	...	—	...	...	...	...	...	...

*Qu'Appelle River*

## Chagones (Star City)

## Cumberland House . . . . .

*Qu'Appelle*

## Aweme (St. Albans) . . .

Almasippi...  
Morden

[illegible]



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, '12.

\* Stations not furnished with Registering Thermometers

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.								PRECIPITATION.						
				Mean.	Difference from average.	Yr's observations	Highest.	Date.	Lowest.	Date.	Mean daily range	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days	No. of auroras.	No. of fogs.
MANITOBA—Continued																		
Dauphin Lake and River	51° 8'	100° 2'	957	50.2	—	2	76.0	12-13	25.0	21-25	18.2	6.96	—	3.03	5	26		
Dauphin	51° 15'	99° 33'		51.1	—	3	75.0	12	24.3	25	17.0	3.86	—	3.86	8	22	4	1
Moose Horn Bay (Arkenville)	51° 15'	99° 33'																
Berens River	52° 18'	97° 23'	710	51.1	—	3	75.0	12	24.3	25	17.0	3.86	—	3.86	8	22	4	1
Lake Winnipegosis																		
Le Pas	53° 49'	101° 15'	860	48.0	—	2	76.0	11	26.0	26	16.6	3.54	—	0.65	18	13		
Swan River	52° 6'	101° 15'	1112															
ONTARIO—																		
The Lake Superior Districts																		
Rainy River																		
Kenora	49° 48'	94° 32'	1102	49.4	-2.8	12	78.0	5	24.0	27	15.5	6.78	—	1.03	12	18	5	
Thunder Bay																		
Kakabeka Falls	48° 29'	89° 26'	912	52.0	—	4	77.0	5-12	22.2	28	22.2	4.06	—	1.03	13	17	6	
Port Arthur	48° 27'	89° 12'	641	54.5	+1.7	30	79.0	12	29.0	28	17.7	4.97	+1.74	1.11	13	17	8	4
Schreiber	48° 50'	87° 15'	933	52.3	—	6	75.2	5	26.5	28	17.6	6.80	—	1.20	17	13	1	7
Algoma																		
Bruce Mines	46° 18'	83° 55'	595	59.4	+2.8	13	82.0	7	28.0	29	20.0	4.19	+0.63	0.92	13	17	1	6
Copper Cliff	46° 30'	80° 59'		59.4	—	6	80.5	7	32.0	29	17.4	3.91	—	0.93	14	16		1
Porcupine	48° 29'	81° 18'		53.7	—	2	83.0	5	21.0	28	23.6	0.71	—	0.22	7	23	1	1
Providence Bay	45° 49'	82° 14'		57.0	—	2	79.0	3	21.0	28	20.1	1.25	—	0.46	4	26		4
White River	48° 35'	85° 16'	1252	52.4	+2.4	23	78.0	6	27.0	28	22.4	5.05	+2.3	1.35	14	16		
Nipissing																		
Cochrane	49° 2'	81° 0'	946	56.1	+1.7	17	80.1	7	32.0	29	15.9	4.59	+1.39	0.98	14	16	3	6
Haileybury	47° 29'	79° 29'	687	55.6	—	2	86.0	20	39.0	28-29	24.6	4.77	—	1.09	11	19		
Montreal River	47° 8'	79° 29'																
Upper Ottawa River																		
Rutherford (Lake Talon)	46° 15'	74° 48'		56.4	-1.1	17	89.0	8	26.0	30	18.3	4.16	+0.49	1.15	15	15	1	7
Stowecliff (Rockcliffe)	46° 9'	78° 6'	557															
Upper St. Lawrence and Lower Ottawa Rivers																		
Almonte	45° 12'	76° 13'	399	57.4	—	1	83.2	10	28.5	30	17.1	3.07	—	0.54	13	15		
Bloomfield	45° 39'	77° 21'	260	57.5	+0.1	12	79.0	10	34.0	30	14.0	3.78	—	0.65	10	29		
Hillier				65.9	—	1	81.0	9	32.0	30	16.7	4.01	—	0.59	15	15		5
Kingston	44° 13'	76° 29'	245	60.3	-0.3	38	83.0	7	35.0	30	14.2	4.55	+2.25	0.67	23	7	7	4
Montague	44° 56'	75° 57'		58.3	—	3	82.0	7	28.0	30	17.9	4.23	—	0.73	15			
North Gower	45° 8'	75° 43'		62.7	+4.7	10	85.0	10-11	27.0	30	21.3	2.09	—	1.20	4	26		2
Ottawa	45° 26'	75° 42'	294	57.5	-1.4	27	77.0	7	31.0	30	13.7	4.34	+1.72	0.54	18	12		3
Renfrew	45° 26'	76° 39'	416	57.4	-0.7	22	82.1	10	29.0	30	17.0	2.15	—	0.63	16	14		8
Georgian Bay Counties																		
Barrie	44° 23'	79° 41'	839	59.8	+0.5	32	87.5	10	35.5	30	15.4	2.97	+0.30	0.55	10	14		3
Beatrice	45° 8'	79° 20'	800	57.7	+3.2	37	83.0	10	31.0	30	16.6	3.72	-0.06	0.54	12	18		3
Coldwater	44° 38'	79° 40'	600	61.4	+3.1	23	87.0	6	32.0	26-29	22.5	2.59	-0.17	0.91	9	21		
Collingwood	44° 31'	80° 2'		61.0	+0.9	18	91.0	11	32.0	30	20.3	2.09	-1.09	0.67	9	21		
Gravenhurst	44° 54'	79° 20'		57.0	+0.6	41	85.0	10	31.0	30	20.2	2.46	+2.09	0.61	13	17	4	
Huntsville	45° 19'	79° 8'		57.8	—	6	85.0	10	31.0	30	18.8	3.10	—	0.70	7	23		
Midland																		
Markdale	44° 44'	79° 53'	759	59.7	—	5	88.0	10-13	33.0	28	19.7	2.83	—	1.14	10	20		
Orillia	44° 37'	79° 24'	773	60.4	+1.2	21	90.0	10	31.0	30	16.7	4.20	+1.23	0.78	11	19		3
Owen Sound	44° 34'	80° 55'	597															
Perry Sound	45° 19'	80° 0'	635	59.7	+1.5	36	84.0	10	33.0	28	16.3	3.57	+0.01	0.81	16	14		4
Ronsville	45° 15'	78° 57'	1038	59.7	—	5	83.0	7-11	39.0	30	19.8	2.98	—	0.69	13	17		
Shelburne	44° 56'	80° 47'	58.9		-4	84.0	7	30.0	30	19.8	3.01	—	0.89	12	18			
Uplands	45° 48'	79° 25'		56.7	+2.2	27	88.0	6	25.7	30	23.8	1.35	-1.81	0.40	12	18	1	
Lake Huron Counties																		
Biram	43° 2'	81° 55'	610	62.1	-1.5	27	97.7	6	37.7	30	15.6	4.65	+1.66	1.00	12	18		7
Clinton	43° 32'	81° 37'		61.5	+2.0	10	86.0	6	35.0	30	19.9	4.36	—	0.85	18	12		5
Godolphin	43° 45'	81° 41'		65.1	—	22	84.5	6	31.0	27	14.2	3.43	—	0.63	10	20		2
Lucknow	43° 56'	81° 30'	908	57.9	-2.5	26	83.0	10	31.6	30	17.6	3.79	+1.46	0.60	16	14		6
North Bruce	44° 23'	81° 25'		61.4	+1.9	24	89.0	6-9	35.0	28	—	3.73	+1.30	0.70	19	16		1
Point Clark	44° 5'	81° 44'	515	—	—	42	—	—	—	—	—	5.06	+2.01	1.61	6	24		3
Sarnia	42° 59'	82° 24'	546															
Southampton	44° 30'	81° 21'	656	60.4	+0.6	36	84.6	10	26.1	30	16.1	4.12	+1.77	0.67	19	11		1
Lakes St. Clair & Erie, Niagara Peninsula																		
Chatham	42° 23'	82° 12'	595	65.5	+4.8	26	95.6	8-10	37.0	30	20.4	3.37	+1.32	0.90	8	22		
Cottam	42° 7'	82° 45'	306	65.1	+2.5	27	93.0	9	30.0	29	25.0	3.17	+0.18	0.85	10	20		5
Grimsby	43° 13'	78° 36'		64.2	—	2	93.0	10	37.0	29	18.3	2.87	—	0.78	17	13		
Pelee Island	41° 50'	82° 32'	585	68.4	-6.9	15	77.0	2-11	39.0	30	7.5	2.63	+0.65	1.24	5	25		
Port Burwell	42° 39'	80° 55'	592	63.7	—	9	83.0	6	31.0	27	14.2	3.43	—	0.63	10	20		
Port Dover	42° 27'	80° 13'	635	62.6	+2.0	40	91.5	6	34.6	30	17.8	3.24	+0.81	0.41	16	14		3
Port Stanley	42° 40'	81° 12'	592	62.4	+1.6	39	81.5	10	35.0	30	16.7	3.18	+0.37	0.99	10	14		2
St. Catharines	43° 9'	79° 45'	292	62.4	+1.0	27	90.0	10	37.0	30	16.5	5.20	+2.24	1.12	12	18		
Stoney Creek	42° 35'	82° 24'																
Wallaceburg	42° 35'	82° 24'																
Welland	42° 59'	79° 17'	577	63.9	+2.7	26	86.0	10	34.0	30	16.1	3.88	+0.31	1.15	12	18		
Winham Centre																		
Windsor	42° 20'	83° 4'	625	65.4	+2.5	39	90.0	1	40.0	27-30	17.0	3.03	+0.13	0.68	11	19		

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, 1912

\* Stations not furnished with Registering Thermometers

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE					PRECIPITATION															
				Mean.	Difference from average.	Yr's Observations.	Highest.	Lowest.	Amount.	Difference from Average.	Heaviest fall in month.	Days with 01 or more in 24 hours.	No of auroras.	No of thunderstorms.	No of fogs.									
ONTARIO—Continued—																								
West-Central Counties																								
Alton	43 51	80 5	1259	63.3	+3.4	30	90.0	5-10	32.0	29	20.1	4.95	+2.65	1.66	11	19	6							
Brantford	43 10	80 21	750	61.0	+3.3	15	88.0	6-10	30.0	30	19.0	6.49	+5.19	1.93	17	13								
Elora	43 41	80 24	1274	61.2	+2.5	27	84.0	6-7	33.6	30	18.2	3.30	+1.13	0.67	14	16	3							
Guelph	43 33	80 16	1050	61.2	+2.5	27	84.0	6-7	33.6	30	20.7	5.59	+2.54	1.12	14	16	5							
London	42 59	81 13	898	64.0	+0.1	26	91.5	6-11	33.0	30	18.5	4.78	+2.07	1.87	15	15	1							
Paris	43 12	80 25	840	63.3	+2.6	23	90.0	6-10	35.0	30	18.5													
Stratford	43 23	81 0	1191																					
Woodstock	43 8	80 47	980	62.7	+3.4	38	87.0	6	39.0	29	17.9	3.90	+0.43	1.16	14	16								
Lake Ontario Counties																								
Agincourt	43 47	79 18	590	61.5	+1.1	17	90.0	10	33.5	30	16.4	5.35	+3.30	1.49	13	18	2							
Aurora	43 57	79 24	886	59.3	—	5	86.3	10	32.0	29	17.2	4.26	+1.71	1.40	14	16	2							
Hamilton	43 16	79 54	303	63.2	+1.5	38	89.0	10	37.0	30	13.5	4.04	+0.86	1.82	6	24	1							
Toronto	43 40	79 24	350	62.7	+1.9	71	92.7	10	36.3	30	16.5	3.78	+0.43	0.47	16	14	2							
Toronto Is (Lakeside Home)	43 40	79 24		61.4	—	8	83.0	10	39.0	30	12.2						7							
Uxbridge	44 5	79 8	886	60.4	—	7	83.0	10	34.0	30	17.0	5.44	—	1.58	14	16								
Wexford	43 44	79 17	555	59.8	—	1	88.0	10	34.6	30	14.4	4.64	—	1.27	13	17	2							
East-Central Counties																								
Bancroft	45 1	77 50		57.2	+4.2	21	85.0	10	25.6	29	17.6	1.13	+2.94	0.83	2	28	1							
Haliburton	45 1	78 28	1050	58.4	+1.6	25	87.0	10	28.0	27-30	19.5	5.00	+2.67	0.62	11	19	3							
Kilmount	44 45	78 38	920	56.5	+0.6	13	88.0	10	26.0	29	19.9	3.10	+0.05	0.71	19	11								
Lakeland	44 25	78 15	850	59.2	+0.3	29	83.0	9	24.0	30	16.6	3.20	+0.74	0.90	10	15								
Landsey	44 20	78 45	872	59.2	+2.0	30	87.6	10	32.2	30	19.0	6.64	+3.76	1.03	20	10	4							
Madoc	44 30	77 29	575	58.6	—	8	85.0	10	31.0	30	17.3	3.15	—	0.55	18	12	4							
Peterboro	44 17	78 19	722	60.5	+1.5	39	90.0	10	32.0	30	20.0	3.02	+0.16	0.64	15	15	4							
Urus	44 54	78 18															3							
QUEBEC—																								
Middle St. Lawrence																								
Brome	45 10	72 36	678	55.9	+0.7	32	78.0	15	30.0	30	13.0	5.57	+4.00	1.65	13	17	2							
Cap Rouge	46 46	71 18		53.4	—	7	71.0	9	31.2	30	16.5	3.34	—	0.73	12	18								
D'Iberville	45 55	71 21	896	52.7	—	2	75.0	26-27	33.0	30	21.7	2.71	—	0.71	8	22	4							
Montreal	45 30	73 35	187	57.7	+1.1	38	74.3	7-15	33.4	33	12.1	6.41	+3.02	1.4	20	10	2							
Quebec	46 48	71 13	296	53.9	+1.5	38	71.6	4	31.5	30	13.8	3.29	+0.48	0.87	18	12	1							
St. Anne de Bellevue	45 27	73 59		56.8	—	6	77.0	4	29.5	30	15.5	5.64	—	1.01	22	8								
Shawinigan Falls	46 34	72 43		52.3	—	9	75.0	4	28.0	30	19.2	2.88	—	0.58	17	13								
Sherbrooke	45 32	72 5	620	55.4	—	9	73.0	16	31.8	20	16.5	6.01	—	1.50	14	13								
Lower St. Lawrence & Gulf																								
*Anticosti, E. Pt.	49 6	61 42	30	47.7	—	29	59.0	5	35.0	17-29	—	1.93	—	0.72	4	26	6							
*Anticosti, W. Pt.	49 52	64 32	30	48.1	+4.0	31	58.0	2	39.0	29-30	—	1.50	+1.22	0.65	6	21	4							
*Biquet	48 23	68 53		49.8	—	31	68.0	11	37.0	28-30		2.73	+0.33	0.43	9	21	1							
*Cape Chatte	49 6	66 45		49.1	+3.8	31	60.0	5	37.0	30	—	0.61	+2.02	0.30	3	27	6							
*Cape Magdalen	49 16	65 20	93	48.7	+2.9	30	66.0	14	32.0	30	—	0.97	+1.63	0.35	7	23	1							
*Father Point	48 31	68 19	20	47.7	+2.2	35	65.0	5	30.0	21	13.5	1.95	+1.09	0.35	15	15	3							
Lake St. John																								
Chicoutimi	48 25	71 5	150			33	—	—				0.88	+2.55	0.34	7	23	2							
Chicoutimi (2)				52.8	—	2	74.0	5	28.0	21	16.7						1							
Lake Edward	47 39	72 15	1333	49.9	—	3	72.6	5	26.6	31	16.5	2.28	—	0.66	9	21	4							
La Tuque	47 27	72 48	520	55.3	—	1	73.0	16	30.0	23	17.9	2.25	—	0.50	9	21	1							
Mistassini	48 54	72 15	360	59.4	—	1	73.5	5	28.5	30	18.6	1.37	—	0.54	12	18	2							
*Roberval	48 31	72 13	452																					
The Northwestern Districts																								
Abitibi	48 33	79 22		54.0	+2.2	17	75.0	4	39.0	29	14.4	2.53	+0.12	0.62	9	21								
Manouan Crossing	47 54	73 50		80.2	—	1	74.0	5-6	28.0	16	19.7	1.19	—	0.21	4	21								
Weymontachungo (Dena A)	45 17	66 4	70	51.8	—	1	74.0	7-9	35.0	30	27.6	0.72	—	0.40	4	26								
White Shore Lake	48 12	75 43		63.6	—	1	75.0	6-7	22.5	16	20.5	2.25	—	0.55	10	20	4							
The North Shore																								
Clarke City	50 10	66 25																						
NEW BRUNSWICK—																								
Clitham	47 3	65 29	21	54.3	+2.7	38	73.0	14	33.5	29	19.4	2.40	+0.73	1.12	11	19								
Dalhousie	48 4	66 22	39			38	65.0	11-16	32.0	23		1.10	+1.78	0.55	3	27								
Friederickton	45 57	66 36	164	54.7	+1.5	30	76.0	15	32.2	22	22.3	4.05	+0.68	1.55	9	26	1							
Moncton	46 9	64 45	50	54.0	+2.8	15	75.0	15	30.0	22	21.8	2.63	+0.24	0.80	6	24	2							
*Point Lepreau	45 4	66 28	30	53.9	+0.7	29	65.0	9	43.0	31		2.66	+0.94	0.88	4	26	2							
St. John	45 17	66 4	70	55.0	+1.6	30	71.2	11	38.5	22	12.7	3.45	+0.19	1.47	11	19	2							
St. Stephen	45 11	67 16	35	54.3	+3.3	15	79.5	8	28.5	21	25.5	3.46	+0.39	1.45	6	24	4							
Sussex	45 38	65 38	96	55.6	+0.3	15	79.0	15-28	29.6	23	22.7	3.15	+0.32	1.12	7	23								

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, '12.

\*Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION			Days with 30 or more No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs	
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount.	Difference from average					Highest fall in month
NOVA SCOTIA—																		
Antigonish	45 38	61 59	50	52.4			74.0	15	34.0	16 25	22.8	—	—	—	—	—	—	
Halifax	44 39	63 36	88	56.2	— 2.6	38	75.1	5	33.4	29	24.5	3.36	— 0.65	1.04	10	20	—	
Kentville	45 3	...	40	51.4		1	72.0	13	28.0	29	20.1	5.85	—	1.36	5	23	—	
New Germany.				54.0		1	78.0	12	26.0	29	27.4	5.96	—	1.07	—	—	—	
Parishboro'	45 23	64 19	40															
Port Hastings	45 39	61 22	45	56.9	— 1.5	21	78.0	11-13	35.0	30	15.6	2.64	—	1.55	3	27	—	
*Sable Island, E. Pt	43 58	59 46	25	56.1	— 1.4	28	63.0	17-19	50.0									
Sydney	46 10	60 10	25	53.2	— 3.8	39	70.0	14	31.0	25	16.6	2.34	— 0.55	0.86	11	19	—	
Taro	45 22	63 18	77															
Whitehead	45 15	61 8	20	54.5	— 3.1	29	66.0	5	45.0	30							4	
Windsor	44 59	64 6	90	54.5	— 2.8	10	76.0	16	33.0	23 29	19.4	1.91	—	0.68	7	23	—	
Wolfville	45 7	64 20		55.7	— 1.6	13	75.0	15	37.8	29	16.9	2.80	— 0.07	1.26	6	24	—	
Yarmouth	43 50	66 2	65	53.9	— 2.2	32	69.3	6	28.1	26	15.3	2.77	— 1.12	1.33	10	20	2	
P. E. ISLAND—																		
Charlottetown	46 14	63 10	38	54.4	— 3.4	37	73.0	15	29.0	22-23	15.2	2.81	—	0.81	7	23	1	
Charlottetown (Exp Farm)	46 14	63 7	75	54.0	—	3	73.0	15	38.0		16.3	2.90	—	0.83	9	21	—	
Hamilton	46 25	63 48		53.1	— 3.6	15	67.0	6-17	40.0	21-30	11.4	1.51	— 2.30	0.87	4	26	—	
NEWFOUNDLAND—																		
*Amour Point	51 28	56 51		42.5	—		54.0	1	32.0	23		1.39	—	0.80	2	28	8	
Burn	47 0	55 10	27	50.5		4	64.0	28-29	34.0	24	16.0	2.73	—	0.50	16	14	5	
*Cape Norman	51 38	55 52		42.6		30	57.0	1	33.0	30		0.73	— 1.39	0.21	6	24	10	
Fogo	49 43	54 17	30															
*Point Riche	50 42	57 25	35	48.7		28	63.0	25	40.0	23		3.30	—	0.40	9	21	1	
Port aux Basques	47 35	59 10	27	49.3		4	67.0	21	31.5	18	11.6	3.82	—	1.08	11	19	—	
St. John's	47 34	52 42	125	49.0	— 4.9	30	68.0	12	33.0	25	12.7	5.68	+ 2.18	2.17	19	11	—	
LABRADOR—																		
North West River				44.6	—		75.0	24	27.0	28	16.7	—	—	—				
BERMUDA—																		
Prospect	32 17	54 46	151	76.2	— 1.6	22	85.4	18	66.0	1	12.1	1.78	— 3.46	0.66	11	19	—	

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW. WEATHER &amp; TIDING SEPTEMBER, 1911.

STATIONS.	RAINFALL.				Date	SNOWFALL.				REMARKS
	Amount in inches.	No. of Days of or over.	No. of Fair Days.	Heaviest Fall in Month		Amount in inches.	No. of Days.	Heaviest Fall in Month	Remarks	
BRITISH COLUMBIA—										
Alkali Lake .....	0.64	5	25	0.52	9					
Annis (Canoe Point) .....	1.29	6	24	0.53	7					
Armstrong .....	0.95	4	26	0.38	2					
Akamias .....	1.02	4	26	0.34	30					
Beaver Lake .....	1.72	5	25	0.66	2					
Barriere Valley (Louis Cr.) .....	2.96	4	26	1.32	1					
Coquitlam .....	1.53	8	22	0.52	7					
Denman's Island .....	1.33	8	22	0.55	7					
Ferguson .....	1.49	8	22	0.68	2					
Goldstream Lake .....	0.97	9	21	0.21	26					
Hydraulic .....	2.3	6	24	0.68	8					
Lornaby Island .....	3.26	7	23	2.54	2					
Jordan River .....										
Jordan River (Bear Creek) .....	1.58	6	24	0.70	7					
Little Qualicum .....	1.11	3	27	0.45	2					
Monte Creek .....	7.70	10	20	1.70	15					
Nass Harbour .....	0.89	5	25	0.51	1.2					
Rock Creek .....	1.66	6	24	1.15	2					
Shwagwan Lake .....	0.60	2	28	0.44	22					
Whylife .....										
ALBERTA—										
Barle .....	0.68	4	26	0.27	5					
Bismark .....	1.01	4	26	0.29	4					
Bruderheim .....										
Buttern Lake .....	1.96	5	24	0.95	19	*	1	*	24	
Brooks .....	1.54	11	19	0.71	5					
Caldwell .....	1.96	11	17	0.73	24		2	*	22	
Dorleans .....	1.19	3	26	0.90	18	*	1	*	15	
Dunstable .....	0.51	6	23	0.35	4	0.1	1	0.1	2	
Grassy Lake .....	0.40	4	25	0.15	4	2.0	1	2.0	2	
Jumping Pound .....	2.47	7	23	0.99	8					
Lacsaube .....										
Loch Sloy .....										
Lyndon .....	2.12	4	26	1.15	9					
Lineham .....	3.19	3	25	1.60	8	1.2	2	0.6	25	
La Pearl .....	1.37	4	26	1.17	5					
Mapled .....	2.22	8	21	0.35	24	3.0	1	3.0	23	
Mapleford .....	2.22	8	21	0.35	24	3.0	1	3.0	23	
Mayeroff .....	1.08	9	20	0.34	24	2.7	1	2.7	23	
Nately .....										
Nanton .....	3.32	7	22	1.07	8	*	1	*	21	
Okotoks .....	2.16	4	26	1.41	8					
Pekisko .....	1.89	8	20	0.70	22	7.0	2	4.0	22	
Ponoka .....	0.93	2	28	0.63	3					
Son .....										
Seven Persons .....	1.80	5	25	0.60	8					
Tilley .....										
SASKATCHEWAN—										
Aberfeldy .....	2.08	5	25	1.62	6					
Gull Lake .....	1.02	2	28	0.52	5					
Gull Lake (Pis. Swift Cur.) .....	0.65	3	25	0.40	13	*	1	*	14	
Last Mountain .....										
Maple Creek .....	0.95	6	24	0.35	4					
Meadow Lake .....										
Nashlyn (Kelvinhurst) .....										
Willow Creek (Battle Cr.) .....	0.94	6	24	0.44	24					
MANITOBA—										
Cartwright .....	5.67	6	21	2.56	17	0.1	1	0.1	27	
Delorme .....	3.73	10	20	1.05	12					
Gretna .....										
Norquay (Swan Lake) .....	5.01	9	20	1.80	14	2.0	1	2.0	28	
Rapid City .....	3.52	6	24	1.22	14					
Rose Bank .....										
ONTARIO—										
Deer Park .....	3.43	11	19	0.70	22					
Dutton .....										
Emsdale .....	1.49	26	14	0.77	23					
Fort Frances .....	4.46	11	15	0.87	4	*	1	*	26	
Georgetown .....	4.03	16	14	0.76	1					
Granham .....	4.09	14	16	1.19	23					
Grand Valley .....	1.72	15	15	1.66	1					
Hillier .....										
Indian Chutes (Elk Lake) .....	2.15	8	22	0.48	10					
Nascoe .....	3.21	11	19	0.62	29					
Princeton .....	3.27	8	22	0.95	2					
Sydenham .....	2.65	5	25	0.83	24					
Strathroy .....	1.48	10	20	0.99	18					
Watford .....	5.06	11	19	1.27	17					
Westport .....	2.78	12	18	0.65	29					
Westminster .....	4.34	11	20	1.02	2					
Wooler .....	2.59	13	17	0.70	24					
Wye .....	4.23	15	14	1.27	1	*	1	*	2	
Wattenwyl .....	3.70	11	19	1.15	22					
Winton .....	3.54	10	20	0.76	2					
QUEBEC—										
Lauro .....	4.40	5	25	1.32	7					
Parkins Mills .....	4.19	14	16	0.81	10					
Quinze Dam .....	3.09	5	25	1.21	26					
Tumiskinning .....	3.87	15	15	0.73	19					
NEW BRUNSWICK—										
Point Picumine .....	2.18	4	26	1.02	39					
NOVA SCOTIA—										
Big Mushamush Lake (Ma- hona) .....	4.30	1	29	4.30	30					
Kentville .....	2.79	8	22	0.75	16					
Kedgemukooze Lake (New Grafton) .....										
Milton .....	2.72	5	25	1.0	29					
Mushamush River (Mahona) .....	4.22	1	29	4.22	30					
Nappan .....	2.86	8	22	1.60	30					
South Alton .....										
White Rock .....	2.35	6	24	0.52	16					

## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF SEPTEMBER, '12

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM								VELOCITY OF WIND						
				Mean reduced.	Highest.	Lowest.	Range.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.		
<b>BRITISH COLUMBIA—</b>																									
Atlin	59 35 133 28	2240	29 95 30 42	29 55 0 87							4	0	4	2	15	25	2	1	3	1	60	11.1	24 0	—	
Barkerville	53 2 121 35	4180	30 07 30 54	29 56 0 88							6	0	1	2	1	0	3	0	0	55	6.1	20 0	16SW		
Kamloops	50 42 120 29	1245	30 01 30 47	29 57 0 90				64	55	6	4	5	2	10	0	2	0	22	7	12	20	2-9	16 0	19W	
Nanaimo	49 10 123 37	125	29 55 30 57	29 59 0 65				89	53	4	0	2	2	4	7	6	1	0	9	41	69	3.8	35 0	30SW	
Prince Rupert	54 18 130 18	170	29 06 31 55	29 54 0 63				81	57	18	0	2	4	4	9	22	0	0	0	25	60	2.2	12 0	38E	
Triangle Island	50 52 129 5	680	30 05 30 48	29 52 0 96				90	54	8	11	4	2	15	2	7	4	10	2	60	15.3	46 0	48E		
Tranquille	50 41 120 29		28 68 29 01	28 30 0 74				70			2	0	10	0	14	4	30	0	60		2.6	16 7			
Vancouver	49 17 123 5	136	30 03 30 35	29 52 0 83				89	4	2	1	1	1	8	1	2	10	5	29	60	2.6	16 7			
Victoria	48 24 123 19	85	30 01 30 31	29 51 0 83				77	4	2	10	11	5	5	7	9	4	5	60	6.5	23 0	14SE			
<b>YUKON—</b>																									
Dawson	64 4 139 20	1200																							
<b>ALBERTA—</b>																									
Banff	51 10 114 34	4542	30 06 30 45	29 50 0 88							4	1	8	1	2	1	15	5	0	27	60	4.7	27 0	19NW	
Calgary	51 2 114 2	3389	30 02 30 45	29 54 0 92							5	2	4	3	12	0	1	1	31	6	63	4.7	27 0	19NW	
Edmonton	53 33 113 30	2158	30 02 30 53	29 50 0 93							0	3	5	2	7	6	5	6	10	13	60	4.4	19 0	18NW	
Medicine Hat	53 33 113 37	2161	30 02 30 47	29 54 0 93							2	4	7	3	0	3	19	11	2	11	60				
<b>SASKATCHEWAN—</b>																									
Battleford	52 41 108 29	1620	30 02 30 57	29 54 1 03				84			8	1	2	12	1	14	9	1	22	90	7.4	43 0	5NW		
Moose Jaw	50 21 105 35	1750	29 09 30 52	29 53 1 05				83			11	9	7	1	1	12	5	11	33	90					
Prince Albert	53 10 106 0	1432	29 04 30 45	29 12 1 33				86			5	5	0	2	7	3	4	9	25	60					
Qu'Appelle	50 30 103 47	2115	29 09 30 52	29 32 1 20				82			7	6	2	4	6	13	11	12	0	60	9.7	33 0	6SW		
Swift Current	50 20 107 45	2439	30 05 30 59	29 52 1 04				82			3	2	10	7	2	16	37	16	2	90					
<b>MANITOBA—</b>																									
Assiniboia (St. Alban's)	49 42 99 43	1180	28 65 29 16	28 28 0 78				85			9	6	8	4	0	11	19	7	1	60					
Le Pas	53 19 101 15	890	29 04 30 51	29 37 1 21				85			6	8	0	3	0	0	1	4	8	40	60				
Minneapolis	50 15 99 50	1699	29 07 30 53	29 35 1 02				85			6	8	0	3	0	0	1	4	8	40	60				
Winnipeg	49 54 97 7	761	29 05 30 46	29 56 0 90				85			6	7	10	8	4	1	6	10	6	10	2	60	10.5	33 0	14NE
<b>ONTARIO—</b>																									
Cochrane	49 2 81 0	946																							
Halifaxbury	47 29 79 30	687	30 07 30 44	29 71 0 73							3	6	2	7	9	8	8	3	11	40		7 0	21 0	26S	
Kingston	41 13 76 29	285	30 05 30 49	29 55 0 65							1	19	4	11	1	7	10	5	2	60					
London	42 58 81 13	808	30 02 30 35	29 70 0 65				5	5	0	20	0	43	0	5	0	22	0	30						
Ottawa	45 26 75 42	294	30 03 30 36	29 78 0 58							2	0	19	6	2	16	9	4	2	60					
Port Arthur	45 19 80 0	635	30 02 30 39	29 71 0 68							6	10	4	9	6	1	6	1	4	2	60	6.4	21 0	25SE	
Port Arthur	48 27 80 12	644	29 07 30 41	29 54 0 87				6	10	4	4	9	6	1	6	1	14	10	6	60	9.0	25 0	6SW		
Port Stanley	42 40 81 13	592	30 02 30 37	29 64 0 73				6	7	2	2	2	10	6	0	3	6	15	16	60					
Southampton	44 30 81 21	656	30 03 30 41	29 70 0 71				7	8	3	7	1	12	14	13	3	5	2	60		5.2	20 0	10SW		
Stoneyham	46 9 78 6	557																							
Toronto	43 40 79 24	350	30 03 30 41	29 72 0 69							5	4	15	5	1	3	16	3	8	60	9.6	33 0	21E		
White River	48 35 85 16	1252	29 06 30 37	29 46 0 91							2	0	9	2	2	8	0	11	28	60					
Woodstock	43 8 80 47	989	30 02 30 42	29 71 0 71				83	6	8	1	4	7	12	5	9	43	9	0	90	3.3	14 0	30NW		
<b>QUEBEC—</b>																									
Father Point	48 31 08 19	20	30 03 30 35	29 63 0 75				6	8	4	2	11	2	6	7	15	2	11	60		8.3	31 0	16W		
Montreal	45 30 73 35	137	30 04 30 35	29 71 0 61				7	8	7	8	3	4	13	11	8	8	0	60						
Quebec	46 48 71 13	296	30 05 30 39	29 65 0 74				7	10	1	4	0	1	1	11	11	8	9	0	60	11.1	40 0	19NE		
<b>NEW BRUNSWICK—</b>																									
Chatham	47 3 65 29	21	30 06 30 41	29 57 0 87				6	2	7	3	9	0	2	11	14	11	3	60						
Fredericton	45 57 66 36	164	30 08 30 45	29 59 0 83				7	6	5	7	6	8	10	11	13	25	5	90		5.3	17 0	17W		
St. John	45 17 66 4	70	30 06 30 43	29 62 0 81				6	7	12	8	4	2	6	6	2	3	16	60		3.0	25 0	30N		
<b>NOVA SCOTIA—</b>																									
Halifax	44 30 63 36	88	30 04 30 60	29 58 1 02				6	5	10	19	4	1	1	3	13	9	0	60		9.9	29 0	11N		
Sedney	46 10 60 10	35	29 02 30 45	29 59 0 95							1	13	4	0	2	7	7	15	7	60	5.4	16 0	9N		
Wolfeville	45 7 64 20	22	29 06 30 42	29 57 0 96							6	1	1	0	1	12	13	9	16	60					
Yarmouth	43 50 66 2	65	30 07 30 40	29 65 0 75							12	7	8	1	5	6	8	2	8	60	7.8	19 0	18SW		
<b>P. E. ISLAND</b>																									
Charlottetown	46 14 63 10	38	30 04 30 42	29 58 0 84							17	6	1	0	0	6	2	7	12	60	4.6	15 0	6N		
<b>NEWFOUNDLAND</b>																									
Burns	47 0 55 10	27	29 08 30 41	29 41 0 85							1	11	2	2	1	8	6	27	2	60	12.3	37 0	11W		
Fogo	49 43 54 17	30																							
Port aux Basques	47 35 59 12	27	29 08 30 43	29 57 0 96							5	9	11	2	2	3	9	17	2	69	18.6	39 0	30NE		
St. John's	47 34 52 42	135	29 01 30 41	29 42 0 99				80	6	9	7	11	3	5	2	13	4	11	0	60					
<b>BERMUDA</b>																									
Prospect	32 17 64 46	151	30 06 30 24	29 39 0 33							9	18	9	1	5	7									

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
SEPTEMBER 1912.

STATION.	HOURS ENDING															
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria				T	32	58	71	71	71	70	78	80	41	05		
Salmon Arm				04	28	49	61	67	62	65	64	62	36	02		
Nanaimo																
Vancouver				07	34	51	60	66	63	60	71	60	41	51	12	
Agassiz				01	33	54	66	59	65	72	87	74	47	22		
Tranquille				02	26	43	50	58	54	55	55	48	34	03		
Summerland				20	70	74	81	79	82	75	79	60	38	47	13	
Kamloops				22	65	76	78	81	76	71	71	67	59	09		
Edmonton				02	30	51	60	79	78	75	79	60	61	39	01	
Lethbridge				07	37	53	57	57	59	58	56	60	54	51	13	
Lacombe				20	54	64	67	71	70	68	71	61	36	01		
Medicine Hat				24	52	56	63	61	62	53	59	48	21			
Fort Dunvegan					11	39	54	54	62	59	52	51	45	35	02	
Fort Vermilion				13	35	62	70	86	88	85	87	81	72	61	43	09
Battleford				01	16	38	52	58	60	64	64	67	67	68	24	
Indian Head					10	38	46	53	55	56	54	42	31	08		
Moose Jaw				01	27	46	57	67	63	55	44	35	19			
Scott				13	37	41	44	54	58	56	51	50	31	03		
Rosethorn				01	19	36	48	53	48	51	47	43	44	33	08	
Brandon				04	15	39	47	58	61	56	50	45	32	09		
Winnipeg					07	23	37	46	44	45	47	49	49	26	02	
Haileybury				09	22	35	35	38	43	46	44	41	39	37	15	T
Woodstock					13	36	52	51	67	61	58	63	59	18		
Lindsay				01	26	32	38	41	42	46	47	39	29	03		
Barrie				01	19	29	35	37	41	54	56	50	45	41	06	
Toronto				06	24	27	43	45	47	47	55	64	58	41	13	
Kingston				T	03	07	20	30	35	31	33	35	28	12	05	
Ottawa					05	22	29	30	30	30	38	34	11	40	27	13
Montreal					10	29	20	35	39	42	41	34	32	29	27	09
Cap Rouge					17	30	35	36	32	33	37	41	29	12		
Quebec				01	16	32	50	39	36	38	42	41	34	24	01	
Sherbrooke				08	27	29	35	39	42	40	42	37	28	21	09	01
Fredericton					20	44	51	58	60	55	52	43	34	24	14	01
Charlottetown					20	49	55	59	57	61	65	58	48	32	03	
Napan				T	13	36	47	54	61	59	58	54	51	38	20	T
stored duration hours	187	169			186	164	129	221	23	191	169	175	153	142	239	194
percentage of possible duration	50	45			49	44	34	59	50	50	45	46	41	37	62	52
deviation from average percentage	+5	-			-13	-	-	-	-	-	-	-	-	-	-	-
maximum percent- age in one day	80	83			86	82	77	88	89	83	90	77	78	72	84	82
percentage of maximum	27	15			20	20	27	16	20	11	17	15	16	15	4	13
number of days completely cloud-	3	4			5	5	11	3	3	2	4	5	5	8	1	6



FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF SEPTEMBER, 1912

STATION	DIRECTION OF WIND FROM								Total num- ber of Observ- ations	
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	5	0	3	1	2	4	11	4	0	30
Campsie.....	2	2	4	6	0	10	6	15	9	54
Didsbury.....	1	1	2	3	2	9	0	11	0	30
Edinburg.....	8	1	0	22	5	2	1	3	0	42
Halkirk (Emsburg).....	2	1	1	6	19	11	5	15	0	60
Hillsdown.....	0	2	0	7	10	3	0	21	17	60
Loveland.....	2	4	2	10	3	7	5	11	16	60
Macleod.....	9	0	2	0	0	1	21	0	27	60
Paken (Victoria).....	3	5	3	0	3	13	10	18	5	60
Ranfurly (Wheatfield).....	11	1	5	14	7	4	19	17	12	90
Sion.....	11	5	7	11	7	12	20	22	0	95
SASKATCHEWAN—										
Chaplin.....	0	3	0	3	0	8	1	15	0	30
Crescent Lake.....	4	2	0	1	3	7	6	6	0	30
Estevan.....	3	2	3	0	3	7	8	4	0	30
Fort Qu'Appelle.....	8	1	3	13	1	11	10	9	4	60
Grenfell (Brownhill).....	1	13	2	5	1	19	5	14	0	60
Indian Head.....	12	11	3	2	5	12	14	18	13	90
Kawnack.....	0	0	0	1	1	3	2	0	23	30
Larchmont (Glenbrian).....	0	4	1	1	0	9	19	25	1	60
Moosomin.....	0	0	4	1	0	1	12	12	0	30
Muenster (St. Peter's Monastery).....	0	8	1	2	0	14	0	35	0	60
Onion Lake.....	10	2	8	4	3	0	0	3	0	30
Pense (Gatesgarth).....	1	0	0	4	0	7	0	8	10	30
Waseca.....	1	2	1	4	0	6	10	6	0	30
MANITOBA—										
Berens River.....	1	19	5	6	0	14	16	22	7	90
Brandon.....	4	5	18	0	1	7	21	34	0	90
Hillview.....	12	8	4	2	3	1	11	9	10	60
Moose Horn Bay (Aitkensville).....	10	3	3	3	0	6	16	9	10	60
Morden.....	3	3	3	1	1	1	10	5	3	30
Oak Bank.....	3	3	3	1	1	1	10	5	3	30
Stony Mountain.....	1	6	22	3	3	26	7	18	4	90
ONTARIO—										
Agincourt.....	1	6	22	3	3	26	7	18	4	90
Alton.....	12	0	1	7	19	7	5	7	32	90
Beatrice.....	12	6	10	4	14	2	6	0	6	60
Birmam.....	5	4	4	11	4	9	12	11	0	60
Cottam.....	13	0	2	11	24	4	6	0	0	60
Gravenhurst.....	13	0	5	25	11	7	8	5	16	90
Lindsay.....	14	2	0	14	13	13	2	11	21	90
North Bruce.....	3	0	5	0	45	10	21	6	0	90
Orillia.....	3	0	2	3	4	8	2	4	0	26
Owen Sound.....	6	7	12	6	12	1	8	8	0	60
Point Clark.....	2	0	8	4	2	1	10	3	0	30
Port Dover.....	1	19	12	6	2	14	34	2	0	90
Scarboro Junction.....	9	0	2	1	11	0	7	0	0	30
Stoney Creek.....	0	1	9	0	0	4	2	4	10	30
Uplands.....	1	19	12	6	2	14	34	2	0	90
Wexford.....	9	0	2	1	11	0	7	0	0	30
QUEBEC										
Abitibi.....	8	1	7	9	30	7	25	3	0	90
Anticosti, W. Pt.....	17	6	9	3	26	1	5	23	0	90
Anticosti, Heath Point.....	17	12	9	3	3	10	10	17	9	90
Bicquet.....	0	18	0	0	3	35	34	0	0	90
Brome.....	5	2	9	4	17	2	40	3	8	90
Cape Chatte.....	5	5	10	0	0	5	28	3	34	90
Cape Magdalen.....	4	3	2	3	22	7	3	31	15	90
Cap Rouge.....	6	11	0	0	0	0	0	13	0	30
Chicoutimi.....	0	24	0	8	0	6	0	15	37	90
Clarke City.....	1	3	0	2	3	13	4	4	0	30
Manouan Crossing.....	0	0	10	0	0	1	18	0	1	30
NEW BRUNSWICK—										
Dalhousie.....	0	1	0	2	0	0	8	15	4	30
Moncton.....	9	10	8	9	1	10	16	12	0	75
Pt. Lepreaux.....	0	4	0	0	0	4	2	0	20	30
Sussex.....	0	2	6	2	1	2	9	8	0	20
NOVA SCOTIA										
Kentville.....	0	5	0	4	3	11	0	7	0	30
Parishoro.....	0	21	0	6	0	36	0	27	0	90
Port Hastings.....	0	2	6	2	1	2	9	8	0	20
Sable Island, E. Pt.....	21	13	10	6	15	16	2	7	0	90
Truro.....	0	2	6	2	1	2	9	8	0	20
Whitehead.....	0	0	10	0	0	1	18	0	1	30



*Thunder recorded:*

1. Princeton, Westminster, Georgetown, Wesley, Emsdale, Agincourt, Beatrice, Point Clark, Stoney Creek, Brantford, Birnam, Lucknow, Clinton, Orillia, Midland, Hillier, Alix, Hillsdown, Goderich, Paris, Aurora, Hydraulic, Rock Creek, Muenster, Saskatoon, Lost River, Parry Sound, London, Guelph, Gravenhurst, Lindsay, Port Stanley, Barrie.

2. Dunstable, Indian Chutes, Point Clark, Brantford, Birnam, Lucknow, Clinton, Kakabeka Falls, Waitefield, Schreiber, Goderich, Paris, Treherne, Aweme, Grand Forks, Saskatoon, Parry Sound, Port Arthur, London, Gravenhurst, Port Stanley, Deloraine, Barrie.

3. Rapid City, Brantford, Kenora, Almasippi, Paris, Oakbank, Aweme, Sion, Lost River, Fort Qu'Appelle, Minnedosa.

4. Kakabeka Falls, Kenora, Almasippi, Paris, Morden, Sion, Muenster, Lost River, Pambrun, Chaplin, Fort Qu'Appelle, Winnipeg, Minnedosa.

5. Westport, Georgetown, Agincourt, Stoney Creek, Bruce Mines, Port Dover, Birnam, Lucknow, Clinton, Renfrew, Hillier, Minnedosa, London, Guelph, Lindsay, Kingston, Providence Bay, Copper Cliff, Kakabeka Falls, Almasippi, Aitkensville, Schreiber, North Gower, Madoe, Rutherglen, Bancroft, Haliburton, Aurora, Peterboro, Wexford, Muenster, Fort Qu'Appelle, Southampton, Toronto, Port Arthur, Winnipeg, Barrie.

6. Jumping Pound, Indian Chutes, Georgetown, Agincourt, Bruce Mines, Port Dover, Schreiber, North Gower, Rutherglen, Aurora, Wexford, Lost River, Southampton, Toronto, Winnipeg, Haileybury, Kingston, Barrie.

7. Cartwright, Kenora, Hillsdown, Almasippi, Brome, Treherne, Morden, Lost River, Pambrun, Rathmullen, Ottawa, Minnedosa, Willow Creek.

8. Lucknow, Providence Bay, Kakabeka Falls, Kenora, Schreiber, Muenster, Rathmullen, Winnipeg, Fort Vermilion (2).

9. Wattenwyl, Emsdale, Beatrice, Bruce Mines, Birnam, Clinton, Providence Bay, Kakabeka Falls, Kenora, Schreiber, Rutherglen, Southampton, Charlottetown, Parry Sound, Barrie.

10. Indian Chutes, Westport, Emsdale, Perkins Mills, Beatrice, Stoney Creek, Bruce Mines, Lucknow, Orillia, Renfrew, Hillier, Montreal River, Providence Bay, North Gower, Madoe, Rutherglen, Haliburton, Peterboro, Brome, Montreal, Parry Sound, Ottawa, Gravenhurst, Haileybury, Lindsay, Kingston.

11. Clinton, Hillier, North Gower, Peterboro, Golden, Yarmouth, London, Kingston.

12. Cartwright, Aweme, Pense, Muenster, Quebec.

13. Cartwright, Almasippi.

14. Birnam.

15. Princeton, Georgetown, Agincourt, Lucknow, Hillier, Haliburton, Fredericton, London, Kingston, Barrie.

16. Golden, Yarmouth.

17. Princeton, Brantford, Birnam, Paris.

18. Dunstable, Lindsay, Port Stanley.

19. Princeton, Wattenwyl, Georgetown, Wooler, Emsdale, Bruce Mines, Brantford, Birnam, Lucknow, Clinton, Orillia, Uplands, Madoe, Rutherglen, Paris, Southampton, Guelph.

20. Westport, Rutherglen, Kingston.

21. Point Clark.

22. Point Clark.

23.

24.

25. Georgetown, Emsdale, Bruce Mines, Brantford, Lucknow, Montreal River, Schreiber, Rutherglen, Port Arthur.

26. Wooler, Agincourt, Renfrew, Madoc, Peterboro, Lake Edward, North Gower, Montreal, Haileybury, Kingston.
27. Lakefield, Treherne.
28. Schreiber.
- 29.
30. Port Dover, Lucknow, Clinton.

*Auroras recorded:*

- 1.
- 2.
3. Bruce Mines II, White Shore Lake III, Rutherglen.
- 4 Sion IV.
- 5.
- 6.
- 7.
8. Ranfurly II, White Shore Lake III, Fort Vermilion (2) IV.
9. Mistassini IV.
10. Ranfurly IV, Schreiber IV, Muenster IV.
11. Ranfurly IV, Aitkensville IV, St. Walburg.
12. Fort St. James.
- 13.
- 14.
15. Ranfurly IV, Aitkensville IV, Muenster IV.
16. Ranfurly II, White Shore Lake III.
17. Cartwright IV, Hillsdown, Ranfurly III, Aitkensville III, Aweme II, Sion IV, Muenster II, Pambrum II.
- 18.
19. White Shore Lake III, Cape Magdalen.
- 20.
- 21.
- 22.
23. Porcupine, Aitkensville IV.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.

## FORECASTS FOR SEPTEMBER 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1159. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta	75	57	15	3	86.0
Saskatchewan	74	55	18	1	86.5
Manitoba	75	56	10	9	81.3
Lake Superior	103	69	24	10	78.6
Lower Lake Region	105	80	13	12	82.4
Georgian Bay	106	79	17	10	82.5
Ottawa Valley	87	65	16	6	83.9
Upper St. Lawrence	97	68	13	6	76.8
Lower St. Lawrence	108	73	27	8	80.1
Gulf	109	77	25	7	82.1
Maritime Provinces West	110	83	17	10	83.2
Maritime Provinces East	110	80	22	8	82.7
Total	1159	842	227	90	82.4

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
Nov. 13th, 1912.

DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

OCTOBER, 1912

No. 10

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

Throughout the province the mean temperature was lower than normal by about 3°. The highest temperatures of the month occurred about the 1st, 5th, 12th, 13th and 23rd, and in very few instances exceeded 70°, and for the most part did not exceed 65°. The lowest temperatures occurred on the 20th and the 28th, when from 2° to 6° of frost were recorded on the Lower Fraser River and in the Okanagan Valley, while 15° were registered in portions of the Kootenays and 12° to 20° degrees on the Upper Fraser River.

### WESTERN PROVINCES.

In Alberta and Northwestern Saskatchewan the departure from normal temperature was negative and ranged between 2° and 4°. In Eastern Saskatchewan and Manitoba, however, the month was warmer than average, especially in Southeastern Manitoba, where positive departures of 3° were recorded. On the 1st and 2nd and the 13th, 14th and 15th 70° was exceeded throughout the Western Provinces, while 80° was exceeded in the southeastern portions of Saskatchewan and Manitoba during the opening days of the month. Light frost was of frequent occurrence throughout the month, but about the 20th and 31st from 10° to 20° of frost were recorded at many points.

### ONTARIO.

The difference from average temperature was positive and almost uniformly 3°. The first week was characterized by warm weather, temperatures exceeding 80° at some points on the 5th and 6th. The last week was the coldest, the maximum temperatures on the 24th, 25th, 29th and 31st not greatly exceeding 40°. On the 17th and 31st from 5° to 7° of frost were recorded in the Rainy River District, and more than 10° in Nipissing and Algoma, while similar conditions occurred in Northeastern Ontario also. In the Peninsula, however, not more than 4° of frost were registered, and on the 16th only.

## QUEBEC.

In this Province also the normal temperature was exceeded. Along the River St. Lawrence the excess ranged between  $2^{\circ}$  and  $4^{\circ}$ , but in the Northwestern Districts between  $1^{\circ}$  and  $2^{\circ}$ . As in Ontario the first week was warm, but  $76^{\circ}$  was the highest temperature registered in any district. On the 9th, 10th, 11th, 29th and 31st minimum temperatures of from  $2^{\circ}$  to  $10^{\circ}$  were recorded.

## MARITIME PROVINCES.

In Northern New Brunswick the normal temperature was exceeded by more than  $2^{\circ}$ , but elsewhere in the Maritime Provinces the difference from average was small, becoming negative in Eastern Nova Scotia. Maximum temperatures ranged as high as  $78^{\circ}$  on the 6th, 7th and 8th, while the lowest temperature recorded was  $20^{\circ}$  at New Germany on the 17th.

## PRECIPITATION.

### BRITISH COLUMBIA.

On Vancouver Island and along the Lower Fraser River rain occurred on from 15 to 24 days, but the average was not greatly exceeded at any place, and at several points was not reached. In the Kootenays and the Okanagan Valley it was recorded on from 5 to 10 days, and in most cases the total amount slightly exceeded the average.

### WESTERN PROVINCES.

In Alberta the amount of precipitation did not differ very much from average occurring on from 1 to 8 days. During the first 11 days it consisted altogether of rain, but in the latter part of the month of both rain and snow. In Saskatchewan the precipitation was either average or below and during the latter half of the month consisted altogether of snow in the northern portion of the Province. In Manitoba rain occurred on the 5th, 6th, 9th, 12th and 18th and snow on the 8th, 9th, 17th and 28th, while the total amount was in nearly all instances considerably less than average.

### ONTARIO.

In the East Central counties of Ontario and locally in the Ottawa Valley precipitation exceeded the average, but elsewhere there were large deficiencies. Rain occurred on about 10 days and was well distributed throughout the month. There were local snow flurries on the last day.

## QUEBEC.

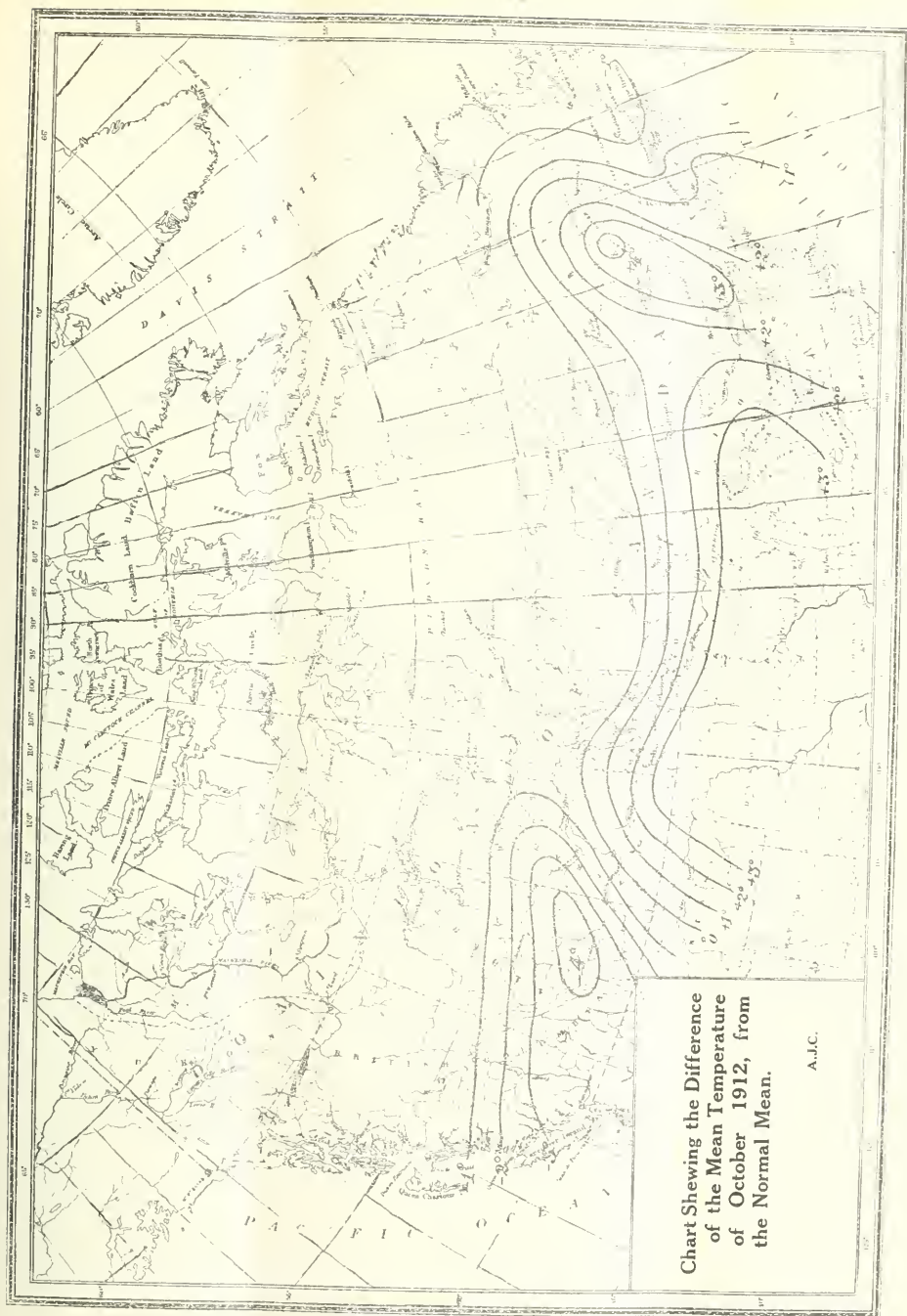
Rain occurred on from 8 to 20 days along the St. Lawrence River and in Southwestern Quebec, while in Northern Quebec rain occurred on 12 days and snow from 2 to 4 days. In nearly all the districts there was a considerable excess over average.

## MARITIME PROVINCES.

Although there were local excesses in New Brunswick there was a large and general deficiency of precipitation in the Maritime Provinces. On the 1st and 16th thunderstorms occurred in many places and locally were attended by very heavy rainfall.

## ATMOSPHERIC PRESSURE.

In southwestern districts of the Maritime Provinces, and also along the shores of Lake Erie, the mean barometric pressure for October was above the average, while in other parts of Canada, the mean value, as evidenced by the records at the Telegraph Reporting Stations, was subnormal. Departures from average were greatest from Saskatchewan to the Thunder Bay District of Ontario being generally more than 0.05 of an inch. The extremes of differences from normal were  $-0.08$  of an inch at Prince Albert, Sask., and  $+0.03$  of an inch at Halifax, N.S.





## HIGH AREAS.

Ten areas of high pressure were charted. Two first appeared to the northward of the Western Provinces, three in British Columbia, four in the Pacific States and one in the vicinity of the South Atlantic States. The general course of the areas was over or close to the Great Lakes, thence to the Atlantic.

The areas were in nearly all instances of feeble energy.

## LOW AREAS.

Sixteen areas of low pressure were charted. Five first appeared over or in the vicinity of Alaska, one in Northern and one in Southern British Columbia respectively, one in Alberta, one in the North Pacific States, five in the neighbourhood of New Mexico, one on the coast of Southern Texas and one in the Ottawa Valley. The general course of the areas from the northwestern portion of the continent was far to the northward and off the coast of Labrador, while those from the southwestern portion passed over the Great Lakes. The area which appeared on the Texas coast was apparently of tropical origin and very energetic at first, but it afterwards quickly lost its intensity and ultimately completely dispersed over the States bordering on the Gulf of Mexico.

## WINDS, OCTOBER, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION
BRITISH COLUMBIA.							
Victoria .....	6070	552	39	3	6	6	N.
Point Garry.....	6621	413	32	1	13	6	E.
ALBERTA.							
Edmonton.....	3590	227	22	.....	1	12	NW.
SASKATCHEWAN.							
Qu'Appelle .....	8631	425	28	.....	10	12	SW. & NW.
MANITOBA.							
The Pas.....	6271	377	28	.....	1	8	W.
Winnipeg.....	1563	681	46	2	3	17	S & SW.
ONTARIO.							
Port Arthur.....	7417	390	30	1	5	25	NW.
Souhampton.....	10143	591	36	4	14	6	SW.
Woodstock.....	4805	315	20	.....	2	7	SW. & NW.
Toronto.....	9471	545	37	3	11	19	SW.
QUEBEC							
Quebec.....	16371	1022	53	2	7	22	NE. & SW.
Father Point.....	12109	745	38	7	8	16	SW.
Anticosti S. W. Pt.....	12849	830	44	4	17	10	NW.
MARITIME PROVINCES.							
Fredericton.....	6388	420	28	.....	12	14	NW.
St. John.....	9757	659	41	2	14	11	NW.
Pt. Lepreaux.....	13495	1189	57	13	13	4	NW.
Yarmouth.....	9233	583	34	4	10	21	N.
Halifax.....	9762	893	43	6	10	15	W.
Sable Island.....	14153	862	..	.....	.....	..	SW. & NW.
Flat Point.....	13517	808	53	16	8	4	SW.
Charlottetown.....	5973	398	27	.....	8	23	SW.

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on October 4th, 1912.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—728 mm.

Temperature=13.0 C.

Direction of flight at Beginning—East in strong wind

Fell—530 km. distant N.70°E.

Maximum Height—11.8 km.

Minimum Temperature=—54.0 C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	728	13.0	
.5	708	11.0	10.5
.66	694	10.5	9.0
.90	672	10.5	8.0
1.00	666	10.0	7.5
1.50	627	8.0	5.0
2.00	590	5.5	3.0
2.50	553	2.0	.5
3.00	520	— 1.0	— 2.5
3.52	489	— 4.5	— 5.5
4.00	458	— 7.5	— 9.5
4.50	428	—10.0	—12.5
5.00	401	—12.5	—15.5
5.50	375	—15.0	—20.0
6.00	352	—17.5	—23.5
6.50	328	—20.5	—26.5
7.00	307	—24.5	—30.0
7.50	287	—27.5	—33.0
8.00	267	—31.5	—36.5
8.50	248	—36.0	—40.5
9.00	230	—41.5	—44.5
9.50	213	—45.5	—48.5
10.00	198	—49.0	—50.5
10.30	190	—48.5	—50.0
10.80	175	—49.5	—51.0
11.50	157	—54.0	
11.80	152	—51.0	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1912.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.					Days with 01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.								
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.														
<b>BRITISH COLUMBIA—</b>																												
<i>S. Vancouver Island</i>																												
Alberni (Beaver Creek)...	49 15	124 49	300	47.0	— 4.0	17	76.0	6	24.0	20 19.8	6.98	—	+1.15	1.98	19	12	...	...	...	...								
Cloacoquot.....	49 11	125 55	27	49.6	— 1.5	13	70.0	13	35.0	19 12.7	13.79	—	+0.04	1.77	21	10	...	...	...	...								
Cowichan (Tzouhalem)...	48 25	123 42	170	48.1	—	—	63.2	3-13	36.0	18-19 20.3	9.61	—	—	1.83	16	15	...	...	...	...								
Nanaimo.....	49 10	123 37	125	46.3	— 2.7	12	61.6	5	29.1	28 13.5	2.50	—	-0.45	0.48	14	17	...	...	...	...								
Nanose Bay.....	49 17	124 12	130	47.0	—	—	65.0	15-16	30.0	20-28 15.6	2.49	—	—	0.78	16	15	...	...	...	...								
Salt Spring Island.....	48 50	123 20	25	47.1	—	—	62.0	23	33.0	29 12.5	4.36	—	—	1.61	16	15	1	...	...	...								
Sooke.....	48 41	123 44	85	46.9	—	—	64.0	14	39.0	29 15.9	1.10	—	—	0.60	10	21	...	...	...	...								
Victoria.....	48 24	123 19	85	45.6	— 2.9	20	63.2	2-5	33.0	20 13.2	2.33	—	+0.07	0.67	14	17	...	...	...	...								
<i>N. Vancouver Island</i>																												
Holberg.....	50 39	128 18	...	47.6	—	4	62.8	7	37.5	20 7.2	17.84	—	—	2.60	21	10	...	...	...	...								
Swanson Bay.....	50 37	126 53	...	46.3	—	4	55.0	23-26	35.0	18 23.6	6.7	16.22	—	2.06	24	7	...	...	...	...								
Triangle Island.....	50 52	129 5	680	47.4	—	1	56.0	2	38.0	21-23 6.5	11.26	—	—	2.28	22	9	...	...	...	...								
Winter Harbour (Quatsino)...	50 32	127 40	...	46.7	—	16	61.0	15	33.0	21-28 12.6	13.55	—	+0.38	1.65	22	9	...	...	...	...								
<i>Lower Fraser River</i>																												
Agassiz.....	49 14	121 31	52	47.8	— 3.1	22	64.0	12	35.0	20 30	19.2	1.27	+1.50	1.30	18	13	...	...	...	...								
Chilliwack.....	49 10	121 57	21	46.9	— 1.0	10	65.0	6-13	26.0	28 15.3	6.70	—	+1.30	0.93	20	11	...	...	...	1								
Hope.....	49 23	121 25	500	43.4	—	3	64.0	2	27.0	28 15.4	6.58	—	—	1.16	16	15	...	...	...	...								
Ladner.....	49 05	123 4	4	50.5	+ 1.5	10	65.0	1	28.0	28 17.1	4.15	0.00	0.00	0.50	13	18	...	...	...	1								
New Westminster.....	49 13	122 54	330	47.7	— 2.2	25	63.0	6-13	32.0	28 13.1	6.00	+0.38	1.04	18	13	...	...	...	...	5								
North Niemen.....	49 12	122 2	59	47.8	— 2.5	19	63.0	13	30.0	28 15.1	6.94	—	-0.33	1.07	19	12	...	...	...	...								
Pennberton Hatchery.....	50 20	122 33	125	43.5	—	5	61.0	5	23.0	29 14.7	3.36	—	—	0.61	11	20	...	...	...	...								
Ruskin (Stave Falls).....	49 16	122 23	125	46.8	—	3	65.0	11	31.0	5-20 13.2	7.66	—	—	0.27	16	15	...	...	...	...								
Steveston (Garry Point).....	49 21	123 17	...	46.2	— 2.1	17	58.0	1-15	30.0	28 13.6	4.17	+0.87	0.56	15	16	...	...	...	...	2								
Vancouver.....	49 17	123 5	136	48.2	— 1.5	12	61.0	14	33.0	28 11.9	4.64	—	-1.10	0.66	20	11	...	...	...	2								
<i>Upper Fraser River</i>																												
Babine Lake.....	55 38	126 26	...	39.6	—	4	62.0	13	18.0	20 18.8	1.50	—	-1.50	1	30	...	...	...	...	...								
Barkerville.....	53 02	121 35	4180	33.6	— 3.1	24	56.0	13	13.0	20 15.2	3.21	+0.33	0.90	9	22	...	...	...	...	...								
Chilcotin (Big Creek).....	51 40	123 0	3100	37.6	—	9	65.0	6	10.0	20 15.5	1.13	—	—	0.38	8	23	...	...	...	...								
Fort George.....	51 40	123 0	3100	35.6	—	1	62.0	6	9.0	29 21.9	1.43	—	—	0.38	9	22	...	...	...	...								
Fort St. James (Stuarts Lake).....	54 28	124 12	2280	36.8	+ 0.5	19	64.0	13	12.0	30 20.3	0.75	—	-0.38	0.30	6	25	...	...	...	...								
Hydraulic.....	54 28	124 12	2280	42.8	—	1	68.0	13-14	18.0	29-30 23.6	1.61	—	—	0.45	8	23	...	...	...	1								
Quesnelle.....	52 59	122 30	1760	50.9	— 0.4	17	67.0	16	18.5	29 20.2	1.31	+0.14	0.45	5	26	...	...	...	...	...								
<i>Okanagan Valley</i>																												
Hedley.....	49 35	120 10	1771	42.7	—	7	57.0	15	25.0	20-23 18.3	0.83	—	—	0.17	9	22	...	...	...	...								
Hedley (Nickel Plate).....	49 35	120 10	1771	40.6	—	8	55.0	14	10.0	20 19.9	1.65	—	—	0.80	6	22	...	...	...	...								
Keremeos.....	49 15	119 20	1200	45.8	—	6	63.5	2	25.5	24 15.6	0.57	—	—	0.28	5	26	...	...	...	...								
Kelowna (Okanagan Mission).....	49 15	119 20	1200	42.9	— 2.8	13	64.0	2-15	27.0	5-22 17.1	0.91	+0.08	0.40	6	25	...	...	...	...	...								
Penticton.....	49 29	119 35	...	44.7	—	6	68.0	15	26.0	20-21 17.7	1.00	—	—	0.42	11	20	...	...	...	...								
Princeton.....	49 29	120 29	1650	—	—	18	71.0	3	—	—	—	1.20	+0.42	0.37	5	26	...	...	...	3								
Summerland.....	49 57	119 0	1100	43.3	—	5	67.0	15	26.0	21 15.4	1.33	—	—	0.55	5	26	...	...	...	...								
Vernon (Coldstream Ranch).....	50 14	119 15	1246	42.6	— 2.8	19	67.0	2	23.0	20-31 27.8	1.29	+0.46	0.43	10	21	...	...	...	...	...								
<i>West Kootenay</i>																												
Crawford Bay.....	49 45	116 45	2000	41.6	—	1	60.0	7	25.0	25-30 16.9	1.71	—	—	0.31	11	20	...	...	...	...								
Creston.....	49 45	116 45	2000	40.8	—	1	68.0	2	21.0	30 19.3	1.18	—	—	0.45	8	23	...	...	...	1								
Grand Forks.....	49 2	118 27	...	44.1	—	2	63.0	15	24.0	18 31	19.7	3.75	—	0.28	10	21	...	...	...	...								
Greenwood.....	49 45	116 45	2000	39.8	—	1	62.0	12-18	15.0	27 30.0	0.71	—	—	0.20	5	26	...	...	...	...								
Howser.....	49 52	117 0	1752	42.7	—	1	68.0	15	28.0	31 12.2	1.93	—	—	0.42	15	17	...	...	...	1								
Kaslo.....	49 52	117 0	1752	40.2	—	1	67.0	16	21.0	31 11.3	1.97	—	—	0.86	10	21	...	...	...	...								
Nakusp.....	49 52	117 0	1752	40.4	—	1	68.0	1	23.5	31 11.3	2.31	—	—	0.55	17	14	...	...	...	1								
Needles.....	49 29	117 21	1760	42.5	— 2.4	10	64.0	2	23.0	31 16.1	3.07	+0.48	0.60	10	21	...	...	...	...	...								
Nelson.....	49 5	117 48	3400	38.6	—	8	56.0	2	23.0	20 16.3	2.80	—	—	0.79	10	21	...	...	...	1								
Rossland.....	49 5	117 48	3400	38.6	—	8	56.0	2	23.0	20 16.3	2.80	—	—	0.79	10	21	...	...	...	1								
<i>East Kootenay</i>																												
Akamina.....	49 30	115 50	...	37.5	—	8	66.0	16	10.0	31 29.6	1.14	—	—	0.38	5	26	...	...	...	...								
Cranbrook.....	49 1	115 5	2684	42.4	— 2.2	16	66.1	1-16	25.0	21-27 15.7	2.56	+1.47	0.44	13	18	...	...	...	...	1								
Tabacco Plains (Elko).....	49 1	115 5	2684	42.4	— 2.2	16	66.1	1-16	25.0	21-27 15.7	2.56	+1.47	0.44	13	18	...	...	...	...	1								
Wilmer.....	50 34	116 14	...	37.9	—	3	59.0	4	15.0	31 16.7	0.74	—	—	0.36	5	26	...	...	...	...								
<i>Thompson River</i>																												
Ashcroft.....	50 32	119 7	1180	44.6	—	1	60.0	2	24.0	21 29.3	0.74	—	—	0.39	5	26	...	...	...	...								
Endorby.....	50 32	119 7	1180	42.9	—	10	67.0	2	24.0	28-30 29.4	1.39	-0.32	0.30	12	19	...	...	...	...	2								
Kamloops.....	50 41	120 29	1245	45.9	— 2.6	20	71.0	2	24.8	28 15.9	0.66	-0.13	0.18	8	23	...	...	...	...	...								
Nicola Lake.....	50 50	120 39	2120	41.6	— 2.6	17	65.0	16	23.0	27-31 18.6	1.12	-0.32	0.48	6	25	...	...	...	...	...								
Pemberton Meadows.....	50 42	119 35	1152	43.3	—	10	67.0	3	17.0	20 28.8	3.48	—	—	0.67	15	16	...	...	...	1								
Salmon Arm.....	50 42	119 35	1152	43.0	—	10	67.0	2-11	22.0	31 18.0	1.48	—	—	0.34	10	21	...	...	...	4								
Salmon Arm (Exp. Farm).....	50 42	119 35	1152	43.2	—	1	65.0	3	23.0	30 19.4	0.53	—	—	0.13	7	21	...	...	...	...								
Tranquille.....	50 41	120 29	...	43.2	—	4	70.0	2	28.0	24	—	0.18	—	0.11	3	28	...	...	...	...								
<i>North Columbia River</i>																												

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1912.

\* Stations not furnished with Registering Thermometers

STATION	Elevation above sea level, in feet.			TEMPERATURES							PRECIPITATION			Days with 0.1 or more in.				
	Latitude N.	Longitude W.		Mean	Difference from average	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average.	Heaviest fall in month.	No. of fair days	No. of auroras	No. of thunderstorms	
BRITISH COLUMBIA CONT.																		
North Coast																		
Bella Coola	52 40	125 54	150	44.2	-1.2	13	63.0	0-9	27.6	20-31	17.2	5.04	-1.06	2.24	13	18	...	
Klitsada River	54 18	130 18	170	48.0	-1	1	56.0	6-13	29.0	19	8.0	10.66	-	1.52	26	6	...	
Prince Rupert	54 18	130 18	170	48.0	-1	5	68.0	13	29.0	19	9.4	12.41	-	1.54	6	26	...	
Stewart	56 1	130 1	215	42.0	-	2	60.0	3	27.0	19	10.1	8.78	-	1.45	18	13	...	
Queen Charlotte Islands																		
Ikeda Bay	52 17	131 7	5	49.9	-	4	60.0	1-5	38.0	18	6.4	7.10	-	0.75	23	8	...	
Masset	53 58	132 9	30	45.9	-0.8	14	58.0	2	22.0	19	10.0	6.48	+0.97	1.15	27	4	...	
Yukon Boundary																		
Atlin	59 35	138 38	2240	37.5	-	6	49.5	5	22.0	21	9.8	1.25	-	0.60	13	18	...	
YUKON—																		
Catcross	60 11	134 34	2171	36.0	-	1	55.0	2	15.0	31	17.3	0.32	-	0.13	5	26	...	
Dawson	64 4	139 29	1200	41.3	-0.9	29	74.0	14	15.0	31	21.8	0.73	-0.03	0.32	9	22	...	
MACKENZIE—																		
Ft. Resolution	61 0	113 0	800	34.3	-	-	55.0	1	13.0	31	27.6	0.72	-	0.30	7	24	...	
ALBERTA—																		
N. Saskatchewan River																		
Campsie	55 52	112 17	36.0	—	1	39.1	14	8.0	31	25.2	0.92	—	0.52	4	27	3	1	
Daysland	55 52	112 17	36.0	—	1	39.1	14	8.0	31	25.2	0.92	—	0.52	4	27	3	1	
Edmonton	53 33	113 30	2158	30.0	-0.9	29	74.0	14	15.0	31	21.8	0.73	-0.03	0.32	9	22	...	
Edinburg	52 0	112 0	2795	36.0	—	2	70.0	3	16.7	28	21.1	0.48	—	0.15	5	26	...	
Gilt Edge	52 59	110 43	37.7	—	3	66.0	1-3	17.5	21	18.2	1.21	—	0.60	5	26	1	...	
Halkirk (Emsburg)	52 17	112 10	37.7	—	3	66.0	1-3	17.5	21	18.2	1.21	—	0.60	5	26	1	...	
Loveland	52 30	111 59	36.6	—	10	65.0	13	10.9	31	21.4	0.45	—	0.23	2	29	...	1	
Paken (Victoria)	54 0	112 31	37.9	—	7	69.8	14	14.0	21-31	22.7	1.02	—	0.82	7	24	...	1	
Ranfarly (Waitefield)	53 29	111 38	2000	36.8	—	1	65.0	15	8.0	18	25.0	0.98	—	0.70	4	27	7	1
Siox	52 58	113 23	2440	36.8	—	1	65.0	15	8.0	18	25.0	0.98	—	0.70	4	27	7	1
Wetaskiwin	52 58	113 23	2440	36.8	—	1	65.0	15	8.0	18	25.0	0.98	—	0.70	4	27	7	1
The Red Deer River																		
Alta	52 24	113 10	35.4	—	8	71.0	14	9.0	31	24.6	1.00	—	0.34	8	23	...	...	
Delia	51 38	112 25	39.4	—	2	68.0	13	17.5	31	22.4	0.72	—	0.43	3	28	...	...	
Dudsbury	51 40	114 8	40.9	-2.5	10	72.0	14	18.0	30	22.9	1.91	—	0.16	4	27	...	...	
Harmattan	51 45	114 23	37.2	—	5	70.0	14-15	8.0	31	28.7	1.09	—	0.37	5	25	...	...	
Hilldown	52 14	113 29	3500	39.6	—	8	70.0	13	11.0	31	21.8	1.18	—	0.70	5	26	...	1
Lacrosse	52 58	113 44	2806	39.3	—	6	70.6	14	13.6	31	25.3	1.68	—	0.70	6	...	...	
Oyen	52 16	113 49	2783	—	—	—	—	—	—	—	—	—	—	—	—	—	...	
Red Deer	52 16	113 49	2806	—	—	—	—	—	—	—	—	—	—	—	—	—	...	
Threehills Creek	51 30	113 11	2806	—	—	—	—	—	—	—	—	—	—	—	—	—	...	
The Bow River																		
Brooks	50 34	111 54	43.9	—	1	72.0	1	13.0	31	26.2	0.37	—	0.22	2	29	...	...	
Calgary	51 2	114 2	3359	40.0	-2.1	28	70.0	3	15.0	21-22	22.3	1.09	+0.60	0.56	7	24	...	...
Cardston	49 20	112 18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...
Farman (Playle Creek)	50 59	112 54	2952	35.4	—	9	72.0	3	14.0	31	23.3	2.50	—	2.50	1	30	...	...
High River	50 35	113 53	2384	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...
Lawrence (Parkland)	50 16	113 26	38.4	—	5	64.0	1-4	20.0	1	23.3	1.05	—	0.50	3	28	...	...	
Lethbridge	49 42	112 51	2961	42.3	—	5	72.2	1	14.2	30	26.1	1.67	—	0.56	8	23	...	...
Lethbridge (Exp. Farm)	49 43	112 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...
Macleod	49 44	113 24	3128	42.6	-2.1	16	73.5	1	11.0	30	19.6	0.50	-0.83	0.17	6	25	...	...
Medicine Hat	50 1	110 37	2161	45.2	-0.9	28	74.6	15	20.0	31	23.8	0.88	+0.36	0.36	5	26	...	...
Pincher Creek	49 0	114 4	3759	39.3	-4.5	17	73.0	1	11.0	29	20.6	1.50	—	0.55	5	26	...	...
Strathmore	50 6	112 34	—	—	—	—	—	—	—	—	—	1.10	—	0.42	3	28	...	...
Sundial	50 6	112 34	—	—	—	—	—	—	—	—	—	0.75	—	0.31	4	27	...	...
Rocky Mountains																		
Banff	51 10	115 34	4542	35.3	-4.1	16	58.0	14	4.8	30	16.5	1.81	+0.67	0.29	11	20	...	1
Blairmore	49 40	114 30	4225	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...
Athabasca River																		
Athabasca Landing	54 43	113 17	1650	38.7	—	9	75.0	15	8.0	25	24.7	0.74	—	0.43	5	26	...	...
Fort Vermilion	54 33	114 19	—	34.2	—	3	70.0	16	5.0	30	27.3	1.06	—	0.50	4	27	...	...
Pembina	54 12	114 0	—	40.4	—	5	87.0	10	8.5	27	20.1	0.45	—	0.30	2	29	...	...
Peace River																		
Beaver Lodge	55 20	119 24	39.5	—	—	69.0	16	5.0	31	23.0	0.74	—	0.10	5	26	1	1	...
Dunvegan	55 56	118 35	1305	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...
Fort Vermilion	55 27	116 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...
Fort Vermilion (2)	—	—	—	34.0	—	—	56.0	16	9.0	31	23.1	0.60	—	0.40	5	26	8	1
Peace River Crossing	56 16	117 15	—	37.4	—	5	68.0	2	8.0	29-31	24.4	0.69	—	0.38	3	28	...	...
Spitt River	55 40	118 47	2409	—	—	—	—	—	—	—	—	—	—	—	—	—	...	...

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1912.

\* Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION.				Days with 40 or more.	No. of fair days	No. of Auroras.	No. of thunderstorms	No. of fogs.							
				Mean	Difference from average.	Yr's observations	Highest	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.											
<b>SASKATCHEWAN—</b>																									
<i>Qu'Appelle River</i>																									
Brownhill (Grenfell).....	50	23	102 53	1957	41.1	+ 3 2	15	75 0	1	22 0	31 22 3	0 14	-0.58	0.09	2	29	...	...							
Brownlee.....	50	45	106 0	.....	39.5	—	8	72 2	16	16 4	31 24 2	0 35	—	0 14	6	25	3	...							
Crescent Lake.....	50	59	102 25	1658	40.7	- 1 5	11	72 0	1	18 0	31 20 7	0 86	+0.32	0 54	3	28	...	...							
Estevan.....	49	12	103 4	1858	40.7	—	1	85 0	1	17 2	19 24 6	0 27	—	0 11	6	25	...	...							
Fort Qu'Appelle.....	51	5	103 24	.....	38.1	—	5	74 0	2	22 0	26 19 5	0 50	—	0 20	2	29	...	...							
Hubbard (Drumagne).....	52	12	103 0	.....	37.3	—	7	70 0	2	12 0	21 22 3	0 59	—	0 40	3	28	...	...							
Humboldt.....	51	22	105 23	.....	40.3	—	1	79 0	1	19 0	6 21 6	0 52	—	0 52	1	30	...	...							
Imperial.....	50	28	103 40	1924	39.9	+ 0 2	33	80 0	1	20 0	18 30 21 8	0 26	+0.58	0 15	5	26	...	...							
Indian Head.....	50	28	103 40	1924	40.8	—	—	79 0	1	24 0	20 31 20 2	0 47	—	0 29	5	26	...	...							
Kamsack.....	50	43	102 2	2064	43.2	+ 2 7	17	85 0	1	18 0	31 23 9	0 33	-0.06	0 14	4	27	...	...							
Manor.....	50	21	105 35	1759	40.0	+ 0 4	11	79 0	1	17 0	21 22 6	0 18	—	0 18	1	30	...	...							
Moosomin.....	52	0	101 37	1884	38.5	+ 1 0	7	69 0	1	17 0	21 18 0	0 10	—	0 10	1	30	1	...							
Maenster (St. Peter's Mon.).....	52	0	105 0	.....	38.8	—	1	73 0	1	18 0	25 19 4	0 20	—	0 15	2	29	...	...							
Pilger.....	50	20	105 0	.....	41.4	+ 0 5	14	84 0	1	13 0	31 26 9	0 49	+0.01	0 24	7	24	...	...							
Pense (Gatesgarth).....	50	30	103 47	2115	41.5	+ 2 5	28	80 0	1	20 0	31 21 5	0 46	-0.54	0 10	7	24	...	...							
Qu'Appelle.....	52	4	104 14	1606	37.6	—	2	70 0	2	22 0	19 31 18 1	1 07	—	0 75	5	25	...	...							
Regina.....	50	27	104 37	1885	40.6	+ 2 1	26	80 0	1	16 0	31 24 8	0 29	-0.40	0 12	4	27	...	...							
Strasbourg.....	50	30	102 4	.....	40.6	—	1	80 0	1	10 0	31 24 3	0 24	—	0 13	2	29	...	1							
Yarbo (Fairfield).....	49	49	104 0	.....	40.5	—	3	75 0	2	20 0	26 22 3	0 28	—	0 24	2	29	...	...							
Yellow Grass.....	51	11	102 29	.....	40.5	—	3	75 0	2	20 0	26 22 3	0 28	—	0 24	2	29	...	...							
Yorkton.....	51	11	102 29	.....	40.5	—	3	75 0	2	20 0	26 22 3	0 28	—	0 24	2	29	...	...							
<i>S. Saskatchewan River</i>																									
Chaplin.....	50	26	106 39	2202	40.1	- 0 8	27	75 0	1	10 0	31 25 9	0 61	-0.09	0 45	6	25	...	...							
East End (Divide).....	49	31	108 49	.....	39.7	—	4	70 4	1	13 0	21 23 8	0 27	—	0 71	4	27	...	1							
Kelvinhurst (Nashlyn).....	49	21	109 29	.....	39.9	—	2	74 0	3	9 0	21 29 2	0 22	—	0 22	1	30	...	...							
Kindersley.....	49	21	109 29	.....	38.0	—	—	75 0	2	1 0	25 26 5	0 28	—	0 28	1	30	...	...							
Larchmont (Glenbryan).....	49	54	107 25	.....	38.7	—	3	74 0	2	11 0	31 28 0	0 45	—	0 30	3	28	...	...							
Oliver.....	51	20	108 57	.....	43.3	+ 0 3	27	75 0	1	21 0	6 21 0	0 74	-0.01	0 34	2	29	...	...							
Rathmullen.....	50	20	107 45	2439	43.3	+ 0 3	27	75 0	1	21 0	6 21 0	0 74	-0.01	0 34	2	29	...	...							
Swift Current.....	50	20	107 45	2439	43.3	+ 0 3	27	75 0	1	21 0	6 21 0	0 74	-0.01	0 34	2	29	...	...							
<i>N. Saskatchewan River</i>																									
Battleford.....	52	41	108 20	1620	43.8	- 4 0	22	75 0	3	22 0	25 31 20 5	0 55	+0.11	0 40	4	27	...	...							
Lloydminster.....	53	18	110 0	.....	38.2	+ 0 7	8	69 0	15	15 0	31 20 2	0 23	—	0 23	...	...	2	...							
Lussland.....	52	5	109 24	.....	38.6	—	2	73 0	1	16 0	31 23 5	0 38	—	0 30	3	28	...	...							
Onion Lake.....	53	52	109 59	.....	37.6	—	5	73 0	1	14 0	25 21 3	0 34	—	0 23	4	27	...	...							
Prince (Monta).....	51	0	105 20	1700	39.1	—	2	75 0	1	14 2	31 23 6	0 15	—	0 05	3	28	...	...							
Scott (Ex. Farm).....	51	59	109 30	.....	39.1	—	2	75 0	1	14 2	31 23 6	0 15	—	0 05	3	28	...	...							
St. Walburg.....	51	59	109 30	.....	39.1	—	2	75 0	1	14 2	31 23 6	0 15	—	0 05	3	28	...	...							
Waseca.....	53	6	109 29	.....	38.2	—	5	70 0	1	13 0	31 21 5	0 82	—	0 60	2	29	1	...							
<i>The Saskatchewan Forks</i>																									
Chagones (Star City).....	52	32	104 13	.....	38.0	- 1 4	6	68 0	1	17 0	31 17 5	0 29	—	0 11	4	27	1	...							
Duck Lake.....	52	54	106 20	.....	39.0	+ 0 2	28	70 0	1-3	21 0	31 15 2	0 56	-0.30	0 50	2	29	...	...							
Melfort.....	52	47	104 30	.....	38.5	+ 0 2	28	70 0	1-3	21 0	31 15 2	0 56	-0.30	0 50	2	29	...	...							
Prince Albert.....	53	10	106 0	1432	38.5	+ 0 2	28	70 0	1-3	21 0	31 15 2	0 56	-0.30	0 50	2	29	...	...							
Rosthern.....	52	40	106 20	1657	39.9	- 6 5	14	71 5	1	21 0	25 20 9	0 27	-0.45	0 11	3	28	...	...							
Saskatoon.....	52	15	106 30	1571	39.9	- 6 5	14	71 5	1	21 0	25 20 9	0 27	-0.45	0 11	3	28	...	...							
<i>Lower Saskatchewan River</i>																									
Cumberland House.....	.....	.....	.....	.....	33.4	—	2	69 0	2	22 0	26 19 0	0 48	—	0 42	2	29	...	...							
Lost River.....	.....	.....	.....	.....	33.4	—	2	69 0	2	22 0	26 19 0	0 48	—	0 42	2	29	...	...							
<b>MANITOBA—</b>																									
<i>Qu'Appelle and Assiniboine Rivers</i>																									
Awenne (St. Albans).....	49	42	99 33	1180	42.9	+ 5 5	28	82 5	4	17 5	22 24 6	0 67	-0.39	0 28	4	27	1	...							
Boissevain.....	50	25	101 1	1703	43.7	—	1	79 0	5	18 0	31 22 8	1 23	—	0 43	4	27	...	...							
Brandon.....	49	51	99 57	1176	38.5	- 1 4	25	75 7	4	16 0	22 25 6	0 24	-0.42	0 21	2	25	...	...							
Carberry.....	49	51	99 20	1258	42.1	—	8	78 0	5	16 0	30 25 8	0 40	—	0 35	3	28	...	...							
Corman.....	49	31	99 3	.....	40.6	+ 1 6	27	72 0	16	19 0	25 21 8	0 43	-0.87	0 31	3	28	...	...							
Cypress River.....	49	33	99 3	1232	40.8	+ 0 2	29	76 5	4	16 0	22 22 6	0 27	-0.78	0 15	4	27	...	...							
Hillview.....	49	55	100 33	1400	42.2	—	2	73 4	1	18 1	31 21 7	0 70	—	0 35	2	29	...	...							
Minnedosa.....	50	15	99 50	1699	40.6	+ 1 6	27	72 0	16	19 0	25 21 8	0 43	-0.87	0 31	3	28	...	...							
Ninette.....	49	24	99 38	1363	46.1	—	—	78 0	4	18 0	30 20 3	1 23	+0.05	0 60	6	25	3	1							
Ninga.....	49	14	99 51	1649	42.2	—	2	73 4	1	18 1	31 21 7	0 70	—	0 35	2	29	...	...							
Pierson.....	49	11	101 5	1531	42.2	—	2	73 4	1	18 1	31 21 7	0 70	—	0 35	2	29	...	...							
Pierson.....	49	34	100 58	1400	44.0	+ 1 3	22	77 0	5	20 0	30 22 2	0 82	-0.06	0 50	4	27	...	...							
Portage la Prairie.....	49	57	98 17	.....	44.0	—	5	77 0	5	20 0	30 21 6	0 26	—	0 16	2	29	...	...							
Portage la Prairie (2).....	49	56	98 17	.....	40.9	+ 5 0	20	78 0	2	21 5	21 20 6	0 10	—	0 08	2	28	...	...							
Russell.....	50	66	101 20	.....	41.5	—	3	71 0	18	23 1	22 22 2	0 27	—	0 27	...	...	...								
Scourie.....	49	36	98 40	1212	42.4	+ 1 6	17	78 0	4	18 0	30 20 3	1 23	+0.05	0 60	6	25	3	1							
Treharne.....	49	36	98 40	1212	42.4	+ 1 6	17	78 0	4	18 0	30 20 3	1 23	+0.05	0 60	6	25	3	1							
Verden.....	49	51	100 55	1444	43.0	—	7	75 0	2	18 0	21 29 9	—	—	—	...	...	...								
<i>The Red River</i>																									
Almasippi.....	49	14	99 20	.....	43.2	+ 0 2	10	79 0	4	18 0	22 30	21 5	1 77	—	1 20	5	26	...							
Morden.....	49	11	98 6	978	44.4	—	8	77 0	5	19 0	30 21 7	1 21	—	0 80	4	27	...	...							
Oak Bank.....	49	57	96 42	800	41.8	- 1 6	17	73 3	4	19 0	22 15 2	1 07	+0.51	1 20	4	27	...	1							
Stony Mountain.....	50	40	97 14	803</																					



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1912.

\* Stations not furnished with Registering Thermometers

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.									
				Mean.	Difference from average.	Y's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.
MANITOBA Continued																			
Dauphin Lake and River	51 8	100 2	957	42 0	—	6	76 0	2-5	22 0	22 20 7	—	—	—	—	—	—	—	—	—
Dauphin (Moose Horn Bay) Atkinsville	51 15	99 33	—	42 5	—	3	79 0	5	21 0	26 16 5	0 86	—	0 35	5 26	4	—	—	—	—
Berens River	52 18	97 23	710	42 8	—	5	72 0	1	20 0	29-31 22 0	2 60	—	0 75	5 26	—	—	—	—	—
Lake Winnipegosis	52 6	101 15	1112	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Swan River	53 49	101 15	890	38 6	—	2	65 0	1	17 0	30 13 8	0 82	—	0 30	4 27	—	—	—	—	—
Le Pas	53 49	101 15	890	38 6	—	2	65 0	1	17 0	30 13 8	0 82	—	0 30	4 27	—	—	—	—	—
ONTARIO—																			
The Lake Superior Districts																			
Riding River	49 48	94 32	1102	38 1	— 3 4	11	65 0	2	25 0	17-31 15 7	3 12	—	2 01	3 28	—	—	—	—	—
Kenora	49 48	94 32	1102	38 1	— 3 4	11	65 0	2	25 0	17-31 15 7	3 12	—	2 01	3 28	—	—	—	—	—
Thunder Bay	48 29	89 26	912	41 7	—	4	83 0	5	13 0	23 26 6	0 93	—	0 43	11 20	—	—	—	—	—
Kakabeka Falls	48 27	89 12	641	43 7	+ 2 1	30	71 0	6	21 0	23 18 3	1 20	-1 33	0 37	11 20	—	—	—	—	—
Port Arthur	48 50	87 15	933	41 1	+ 1 1	13	68 2	6	20 2	23 19 7	2 40	—	0 71	8 23	—	—	—	—	—
Schreiber	48 50	87 15	933	41 1	+ 1 1	13	68 2	6	20 2	23 19 7	2 40	—	0 71	8 23	—	—	—	—	—
Algoma	46 18	83 55	595	47 8	+ 2 11	79 0	6	21 0	21 22 6	2 00	-1 29	1 08	6 25	—	—	—	—	—	—
Bruce Mines	46 30	80 59	—	45 6	—	5	75 0	6	27 5	16 19 0	1 77	—	0 73	8 23	—	—	—	—	—
Copper Cliff	48 29	81 18	—	42 0	—	83 0	6	23 5	21 20 2	2 75	—	0 96	13 18	—	—	—	—	—	—
Porcupine	48 29	81 18	—	42 0	—	83 0	6	23 5	21 20 2	2 75	—	0 96	13 18	—	—	—	—	—	—
Providence Bay	45 40	82 14	—	43 5	—	2	69 0	5 6	22 0	28 20 7	1 01	—	0 65	2 23	—	—	—	—	—
White River	48 35	85 16	1252	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nipissing	49 2	81 0	946	41 3	—	1	79 8	6	22 0	16 18 0	1 81	—	0 41	11 20	—	—	—	—	—
Cochrane	47 29	79 39	687	45 8	+ 3 3	18	77 2	6	26 2	16 17 5	3 03	—	1 16	13 16	—	—	—	—	—
Haileybury	47 8	79 29	—	40 4	—	2	76 0	6	19 0	16 19 0	4 01	—	1 04	7 24	—	—	—	—	—
Montreal River	47 8	79 29	—	40 4	—	2	76 0	6	19 0	16 19 0	4 01	—	1 04	7 24	—	—	—	—	—
Upper Ottawa River	46 15	74 48	—	44 6	+ 4 3	18	75 0	6	20 0	16 18 7	2 19	-0 66	0 55	12 19	—	—	—	—	—
Rutherford (Lake Tabou)	46 9	78 6	557	45 6	+ 2 3	28	78 0	6	22 0	11 21 2	2 07	+0 26	0 98	16 15	—	—	—	—	—
Stoneyham (Rockcliffe)	46 9	78 6	557	45 6	+ 2 3	28	78 0	6	22 0	11 21 2	2 07	+0 26	0 98	16 15	—	—	—	—	—
Upper St. Lawrence and Lower Ottawa Rivers	45 12	76 13	300	48 1	—	1	71 7	6-8	23 0	16 19 4	2 55	—	1 21	10 21	—	—	—	—	—
Almonte	45 12	76 13	300	48 1	—	1	71 7	6-8	23 0	16 19 4	2 55	—	1 21	10 21	—	—	—	—	—
Bloomfield	43 59	77 21	260	44 4	+ 0 8	12	69 0	5-12	27 0	16 18 6	2 30	—	0 85	7 24	—	—	—	—	—
Hillier	43 59	77 21	260	44 4	+ 0 8	12	69 0	5-12	27 0	16 18 6	2 30	—	0 85	7 24	—	—	—	—	—
Kingston	44 13	76 29	285	50 7	+ 2 3	38	68 6	4	25 5	16 15 2	2 98	-0 28	0 89	12 19	—	—	—	—	—
Montano	44 56	75 57	—	48 1	—	3	75 0	5	24 0	16 20 3	2 09	+0 36	0 85	9 22	—	—	—	—	—
North Gower	45 8	75 43	—	45 8	—	75 43	—	—	—	—	—	—	—	—	—	—	—	—	—
Ottawa	45 26	75 42	294	48 7	+ 2 1	27	73 0	6	28 0	16 18 0	2 41	+0 16	0 67	13 18	—	—	—	—	—
Renfrew	45 26	75 39	410	48 4	+ 4 6	23	81 2	5	23 0	16 20 1	3 20	+1 17	1 35	11 20	—	—	—	—	—
Georgian Bay Counties	44 23	79 41	839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barrie	44 23	79 41	839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beatrice	45 8	79 20	800	46 1	-2 7	37	75 0	6	22 0	16 20 1	3 56	+0 25	0 72	10 21	—	—	—	—	—
Coldwater	44 38	79 40	800	46 8	+ 4 6	23	81 0	6	25 0	16 22 3	2 52	-0 57	0 84	12 19	—	—	—	—	—
Collingwood	44 31	80 2	—	47 6	+ 1 0	18	82 0	6-7	30 0	16 19 5	2 21	—	0 49	12 19	—	—	—	—	—
Gravenhurst	44 34	79 20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Huntsville	45 19	79 8	—	47 6	—	6	76 0	6	22 0	16 17 7	—	—	—	—	—	—	—	—	—
Midland	44 44	79 53	750	54 7	—	5	80 0	6	40 6	23-31 15 7	5 05	—	0 86	13 18	—	—	—	—	—
Markdale	44 44	79 53	750	54 7	—	5	80 0	6	40 6	23-31 15 7	5 05	—	0 86	13 18	—	—	—	—	—
Orillia	44 37	79 24	775	48 2	+ 1 6	18	78 0	6	26 0	16 19 4	3 50	+0 51	1 12	11 20	—	—	—	—	—
Owen Sound	44 34	80 55	597	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Percy Sound	45 19	80 0	625	48 9	+ 3 0	36	73 0	6	25 0	16 17 7	3 01	-0 73	0 66	15 16	—	—	—	—	—
Rensville	45 15	78 57	1058	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Shelburne	44 6	80 47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uplands	45 48	79 25	—	44 9	+ 1 2	27	76 0	6	16 5	16 22 5	—	—	—	—	—	—	—	—	—
Lake Huron Counties	43 2	81 55	600	50 3	+ 1 8	23	75 4	6	30 0	16 16 1	2 85	-0 04	0 70	9 22	—	—	—	—	—
Braman	43 2	81 55	600	50 3	+ 1 8	23	75 4	6	30 0	16 16 1	2 85	-0 04	0 70	9 22	—	—	—	—	—
Clinton	43 32	81 37	—	48 1	+ 1 6	10	75 0	7	29 0	16 17 4	1 97	—	0 49	12 19	—	—	—	—	—
Georgetown	43 45	81 41	—	40 8	+ 1 1	22	73 6	7	32 6	11 14 5	3 22	+1 29	1 56	4 27	—	—	—	—	—
Lockwood	43 56	81 30	908	48 1	+ 0 7	26	75 1	6	25 5	16 19 4	1 70	-2 29	0 44	14 17	—	—	—	—	—
North Bruce	44 23	81 25	—	49 3	+ 1 2	24	73 0	5	37 0	8-31	—	1 34	-1 39	0 49	10 21	—	—	—	—
Point Clark	44 5	81 44	595	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sarnia	42 59	82 24	595	50 8	+ 2 8	36	75 2	6	31 7	28 14 8	1 64	-1 23	0 51	12 19	—	—	—	—	—
St. Clair	44 30	81 21	636	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lakes St. Clair & Erie, Niagara Peninsula	42 23	82 12	595	52 3	+ 1 4	27	81 0	6	30 0	31 21 4	3 46	+0 02	0 75	10 21	—	—	—	—	—
Chatham	42 23	82 12	595	52 3	+ 1 4	27	81 0	6	30 0	31 21 4	3 46	+0 02	0 75	10 21	—	—	—	—	—
Cottam	42 7	82 45	506	51 8	+ 1 0	25	80 0	12	28 0	18-19 25 8	2 18	-0 54	0 75	7 24	—	—	—	—	—
Grimsby	43 13	79 36	530	53 0	—	3	79 0	6	32 0	15 18 9	3 17	—	0 97	11 20	—	—	—	—	—
Poles Island	41 50	82 35	565	57 9	-2 2	30	72 0	10	31 0	25 15 6	3 22	+1 29	1 56	4 27	—	—	—	—	—
Port Burwell	42 30	80 55	592	50 9	+ 0 7	26	75 1	6	25 5	16 19 4	1 70	-2 29	0 44	14 17	—	—	—	—	—
Port Dover	42 27	80 18	635	49 8	+ 0 6	36	70 5	6	29 0	15 18 8	3 03	+0 55	0 59	14 17	—	—	—	—	—
Port Stanley	42 40	81 17	592	50 8	+ 2 0	30	68 8	6	28 4	16 17 1	2 55	-0 24	0 51	14 17	—	—	—	—	—
St. Catharines	43 9	79 12	292	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stoney Creek	43 13	79 45	292	52 1	+ 2 1	28	77 0	6	33 0	18-19 18 1	2 61	-0 87	0 83	8 23	—	—	—	—	—
Wallaceburg	42 35	82 24	—	49 1	—	7	71 0	-1 21	27 0	15 23 7	0 88	—	0 26	8 23	—	—	—	—	—
Welland	42 59	79 17	577	51 2	+ 1 2	27	71 0	6	30 0	16 16 4	3 90	+1 59	2 09	9 22	—	—	—	—	—
Winham Centre	42 20	83 4	625	51 6	+ 0 3	27	7 50	7	33 0	31 17 0	3 01	+0 60	0 91	10 21	—	—	—	—	—
Windsor	42 20	83 4	625	51 6	+ 0 3	27	7 50	7	33 0	31 17 0	3 01	+0 60	0 91	10 21	—	—	—	—	—



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1912

\* Stations not furnished with Registering Thermometers.

STATION	TEMPERATURE										PRECIPITATION							
	Latitude N.	Longitude W.	Elevation above sea level in feet.	Mean.	Difference from average.	Yr's Observations.	Highest.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Haviest fall in month.	Days with 01 or more.	No. of fair days.	No. of autums.	No. of thundersdays.	No. of fogs.
ONTARIO—Continued—																		
West-Central Counties																		
Alton.....	43 51	80 5	1250	45.1	+ 0.6	26	76.2	7	21.9	15 23.4	2.35	-0.44	0.51	8 23				
Brantford.....	43 10	80 21	750	50.5	+2.6	31	77.0	6	27.0	13 21.1	2.37	-0.13	0.75	8 23				
Elora.....	43 41	80 24	1274	47.4	+2.5	15	72.0	5-6	27.6	16 19.4	2.02	-0.79	0.52	9 22				
Guelph.....	43 33	80 16	1050	48.9	+2.6	26	75.0	6	29.0	16 17.7	2.70	-0.51	0.61	12 19				
London.....	42 59	81 13	805	50.8	+2.2	28	78.5	6	27.0	16 21.1	3.03	+0.18	0.90	9 22				
Paris.....	43 12	80 25	840	50.0	+ 1.3	22	76.0	6	30.0	16 20.3	3.03	+0.03	0.81	12 19				
Stratford.....	43 23	80 0	1191	49.3	+2.2	33	73.8	6	29.0	16 19.3	2.97	-0.10	0.49	15 16				
Woodstock.....	43 8	80 47	580	49.3	+2.2	33	73.8	6	29.0	16 19.3	2.97	-0.10	0.49	15 16				
Lake Ontario Counties																		
Agincourt.....	43 47	79 16	590	49.1	+ 0.7	16	74.0	6	28.0	16 18.2	2.37	-1.33	0.60	10 21	1	3		
Aurora.....	43 57	79 24	895	47.2	—	5	73.0	6	25.5	15 17.2	3.03	+0.42	0.73	9 22				
Hamilton.....	43 16	79 54	203	50.6	+1.3	71	73.8	6	30.1	16 17.9	2.27	-0.50	0.55	15 16				
Toronto.....	43 40	79 24	350	50.0	—	7	70.0	6	26.0	16 14.1	3.18	—	0.67	9 22				
Toronto Is.(Lakeside Home)	43 40	79 24	350	50.0	—	7	70.0	6	26.0	16 14.1	3.18	—	0.67	9 22				
Uxbridge.....	44 5	79 8	886	47.8	—	1	72.0	6	27.6	16 17.1	1.95	—	0.69	6 25				
Wexford.....	43 44	79 17	555	47.8	—	1	72.0	6	27.6	16 17.1	1.95	—	0.69	6 25				
East-Central Counties																		
Bancroft.....	45 1	77 50	1030	47.1	+ 3.8	21	75.0	4-5	21.9	15 21.8	2.05	—	1.75	3 28				
Haliburton.....	45 1	78 25	1030	46.8	+2.3	24	77.0	6	19.0	16 22.3	8.00	+5.30	1.50	13 18				
Kilmoryn.....	44 45	78 35	920	43.4	+0.9	13	75.0	6	20.0	16 22.3	4.45	—	2.16	9 22				
Lakefield.....	44 23	78 15	850	48.9	+2.4	29	73.0	7	29.0	16 16.9	4.18	+2.11	1.46	9 22				
Lindsay.....	44 20	78 45	872	47.9	+3.2	33	74.1	6	23.2	16 20.3	3.37	+0.74	0.63	13 18				
Malton.....	44 30	77 29	575	49.1	—	1	76.0	6	22.0	16 19.5	3.95	—	1.33	10 21				
Norwood.....	44 17	78 19	722	49.1	+2.2	42	77.0	6	24.0	16 22.4	4.70	+1.07	1.10	6 25				
Peterboro.....	44 17	78 19	722	49.1	+2.2	42	77.0	6	24.0	16 22.4	4.70	+1.07	1.10	6 25				
Ursa.....	44 54	78 15	465	46.8	—	5	70.0	2-20	24.0	8 21.6	1.71	—	0.51	7 24				
QUEBEC—																		
Middle St. Lawrence																		
Brome.....	45 10	72 36	678	45.3	+4.0	32	72.0	6	23.0	29 17.7	3.22	+0.71	1.00	12 19				
Cap Rouge.....	49 46	71 18	89	44.0	—	2	72.0	7	28.2	16-29 16.1	3.74	—	1.21	17 14				
D'Irauli.....	45 55	71 21	896	45.4	—	3	74.5	7	22.0	3-29 26.8	2.51	—	1.07	7 24				
Montreal.....	45 30	73 35	187	44.5	+2.9	38	71.2	6	30.0	16 18.8	3.39	+0.38	0.73	13 18				
Quebec.....	46 43	71 13	296	45.5	+2.5	35	70.2	6	27.8	16 16.5	3.16	+0.45	0.87	15 16				
Ste. Anne de Bellevue	45 27	73 59	495	49.5	—	6	73.5	6	27.9	16 16.5	2.27	—	0.64	13 18				
Shawinigan Falls	45 34	72 43	43.1	+1.1	11	75.0	6	26.0	29 16.1	3.55	+1.04	0.65	16 15					
Sherbrooke.....	45 32	72 5	620	48.0	+3.1	10	74.3	8	24.3	29 18.0	2.39	-0.09	0.57	17 14	1	1	1	1
Lower St. Lawrence & Gulf																		
*Anticosti, E. Pt.....	49 52	61 42	30	40.1	+0.8	29	54.0	7	25.0	17 —	2.57	—	0.54	8 23				
*Anticosti, W. Pt.....	49 52	64 32	29	40.3	+0.6	31	53.0	7-22	28.0	16 —	2.23	+0.45	0.45	14 17				
*Bicquet.....	49 25	68 53	415	+5.0	31	68.0	6	32.0	16-21	—	3.45	+1.35	1.10	7 24				
*Cape Chatte.....	49 6	66 45	42.7	+0.9	30	69.0	7	30.0	16 —	—	3.00	+0.73	2.10	6 25				
*Cape Madalen.....	49 16	65 20	42.0	+2.7	30	70.0	7	29.0	22 —	—	2.05	-0.60	0.50	13 18				
Father Point.....	48 31	68 12	29	42.9	+2.6	35	65.0	7	25.0	12 12.5	5.75	+2.60	2.52	13 18				
Lake St. John																		
Chicoutimi.....	48 25	71 5	150	44.0	—	34	—	—	—	—	1.55	-0.80	0.36	12 19				
Chicoutimi (2).....	47 30	72 15	1333	41.8	—	2	74.0	6	26.0	28 13.7	4.95	—	0.65	19 12				
Lake Edward.....	47 27	72 48	520	41.8	—	3	73.6	6	22.5	28 14.0	4.95	—	0.65	19 12				
La Tuque.....	48 54	72 15	300	40.9	—	1	76.7	7	21.5	8-16 16.8	4.21	—	0.53	18 13	1			
*Roberval.....	48 31	72 13	352	40.9	—	1	76.7	7	21.5	8-16 16.8	4.21	—	0.53	18 13	1			
The Northwestern Districts																		
Abitibi.....	48 33	79 22	42.5	+1.9	17	75.0	6	25.0	9-10 14.5	2.50	—	0.65	8 23					
Manouan Crossing.....	47 54	73 50	39.0	—	1	74.0	6	22.0	2-9 18.4	5.20	—	1.04	19 12					
Weymontachiquing (Dam A)	45 17	66 4	35	36.3	—	1	71.0	7	18.0	15-18 18.0	1.49	—	0.41	5 26				
White Shore Lake.....	48 12	75 43	49.7	—	0.0	15	79.3	6	13.5	8 19.4	4.34	—	1.18	13 18	2			
The North Shore																		
Clarke City.....	50 10	66 25	45.7	+0.4	38	78.0	7	26.5	30 17.3	5.41	+1.72	2.36	16 15					
NEW BRUNSWICK—																		
Chatham.....	47 3	65 29	21	45.7	+9.4	38	78.0	7	26.5	30 17.3	5.41	+1.72	2.36	16 15				
Dalhousie.....	45 4	66 22	39	43.3	+2.2	37	75.0	6-7	21.0	23 14.8	4.08	—	2.30	8 23				
Friederickton.....	45 57	66 36	164	45.0	+0.4	35	77.8	6	25.0	21-8 50.6	1.07	+2.27	1.85	13 18	1	1	1	1
Moncton.....	46 9	64 45	50	44.6	+0.5	13	75.0	6-7	24.0	21 20.9	2.15	-1.12	0.60	8 23				
*Point Lepreau.....	45 4	66 28	30	46.5	+0.5	34	60.0	5	33.0	15 —	4.01	0.00	2.35	7 24				
St. John.....	45 11	67 16	70	45.0	+0.6	39	68.0	5	32.0	16 11.0	3.23	-0.92	0.44	15 16				
St. Stephen.....	45 11	67 16	70	45.0	+0.6	39	68.0	5	32.0	16 11.0	3.23	-0.92	0.44	15 16				
Sussex.....	45 38	65 38	96	45.7	+0.2	15	74.0	3	24.6	21-30 22.6	2.76	-1.22	0.89	4 27				
Williamsburg.....	43.3	—	1	74.5	—	1	74.5	7	25.0	21 16.6	7.23	—	2.61	13 18				

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1912.

\*Stations not furnished with Registering Thermometers

STATION	TEMPERATURE										PRECIPITATION				Days with .01 or more	No. of fair days	No. of Aurors	No. of thunderstorms	No. of fogs						
	Latitude	Longitude	Elevation above sea level, in feet	Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Annual	Difference from average	Heaviest fall in month											
NOVA SCOTIA—																									
Antigonish.....	45 38	61 59	50	48.3	—	2	75.0	7-8	23.0	22	20.8	—	—	—	—	—	—	—							
Halifax.....	44 39	63 36	88	49.1	+ 0.3	38	76.6	6	28.3	22	18.2	3.77	-1.80	1.82	13	18	...	3							
Kentville.....	45 3	...	40	44.0	—	1	74.0	7	21.0	22-30	18.6	1.57	—	0.56	7	24	...	1							
New Germany.....	45 23	64 19	40	47.4	—	1	78.0	6	20.0	17	26.7	2.95	—	1.64	4	27	...	...							
Parrsboro'.....	45 39	61 22	45	42.3	- 5.9	21	68.0	6	23.0	17	12.6	1.88	-2.70	0.64	3	28	...	...							
*Port Hastings.....	43 58	59 46	25	48.0	+ 0.5	39	73.0	6-7	29.0	22	15.4	2.66	-2.32	0.94	10	21	...	1							
Sydney.....	46 10	60 10	55	48.0	+ 0.5	38	77.8	7	21.0	17	21.3	1.95	-2.63	0.72	12	19	...	...							
Turro.....	45 22	63 18	77	46.7	+ 0.5	38	77.8	7	21.0	17	21.3	1.95	-2.63	0.72	12	19	...	...							
Whitehead.....	45 15	61 8	20	48.8	- 0.6	28	77.0	—	—	—	—	5.99	-1.77	3.80	5	26	...	2							
Windsor.....	44 59	64 6	90	48.4	+ 1.3	10	78.0	7	25.5	17	17.1	1.96	—	0.53	13	18	...	...							
Wolfville.....	45 7	64 20	...	48.0	+ 0.3	13	76.0	7	27.6	30	18.7	1.85	-0.11	0.51	8	23	...	1							
Yarmouth.....	43 50	66 2	65	49.5	+ 1.2	32	65.0	6	30.6	30	13.4	3.87	-0.80	1.77	8	23	...	1							
P. E. ISLAND—																									
Charlottetown.....	46 14	63 10	38	47.8	+ 0.7	37	70.0	7	31.5	17	12.8	3.73	—	1.58	15	16	...	...							
Charlottetown (Exp. Farm).....	46 14	63 7	75	47.7	—	3	73.0	7	23.5	17	15.8	2.66	-0.88	0.75	6	26	...	...							
Hamilton.....	46 25	63 48	...	46.7	+ 0.3	15	70.0	7	32.0	17	14.3	3.00	-1.64	1.08	14	27	...	...							
NEWFOUNDLAND—																									
*Amour Point.....	51 28	56 51	...	45.5	—	...	64.0	7-8	28.0	12	14.6	5.22	—	0.90	13	18	...	1							
Burin.....	47 0	55 10	27	36.9	—	28	47.0	4-25	30.0	11	—	1.24	—	0.40	7	24	...	9							
*Cape Norman.....	51 38	55 52	...	40.8	- 0.9	28	50.0	7	25.0	17	—	0.82	-2.69	0.37	6	25	...	1							
Fogo.....	49 43	54 17	30	42.0	—	4	55.5	6	23.5	22	8.7	3.00	—	0.76	16	15	...	5							
*Point Riche.....	50 42	57 25	35	42.4	—	...	58.2	7	29.2	16	14.6	1.06	—	0.35	11	20	...	1							
Port aux Basques.....	47 35	59 10	27	42.0	—	...	58.2	7	29.2	16	14.6	1.06	—	0.35	11	20	...	1							
St. George's.....	47 34	52 42	125	44.6	- 1.3	40	67.0	7	30.0	12	13.6	3.84	-2.40	0.75	13	18	...	1							
St. John's.....	47 34	52 42	125	44.6	- 1.3	40	67.0	7	30.0	12	13.6	3.84	-2.40	0.75	13	18	...	1							
LABRADOR—																									
North West River.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
BERMUDA—																									
Prospect.....	32 17	64 46	151	73.8	+ 0.5	21	83.6	12	64.0	28	10.1	2.16	-5.75	0.84	10	21	...	1							

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING OCTOBER, 1912.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS.
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake	1.07	6	25	0.44	2					
Annis (Canoe Point)	1.67	12	19	0.30	17					
Armstrong	1.76	9	22	0.50	17					
Beaver Lake	1.91	10	21	0.65	18					
Barriere Valley (Louis Cr.)										
Coquitlam	5.77	11	20	1.60	15					
Denman's Island	4.23	16	15	0.87	25					
Ferguson	3.23	8	21	1.24	17	10.5	2	7.0	22	
Goldstream Lake	4.22	16	14	1.17	19	*	1	*	18	
Hydraulic	2.39	11	20	0.45	10					
Hornby Island	3.31	9	22	1.43	17					
Jordan River										
Jordan River (Bear Creek)	8.46	18	12	1.85	1	2.0	1	2.0	23	Trail on 3rd and 4th
Little Qualicum	2.61	6	25	0.85	18					
Monte Creek	0.85	6	25	0.30	24					
Nass Harbour	11.70	16	15	1.45	3					
Shawnigan Lake	3.84	15	16	1.76	19					
Wycliffe										
ALBERTA—										
Bardo	0.26	2	28	0.18	17	3.5	1	3.5	19	
Bismark	1.00	1	28	1.00	17	5.3	2	4.2	8	
Brauerheim										
Bittern Lake	0.37	3	27	0.27	17	4.8	1	4.8	19	
Brooks	1.04	5	26	0.67	8					
Caldwell	1.46	5	23	0.57	8	14.0	3	6.0	28	
Clareholm	0.17	1	28	0.17	27	6.0	2	4.0	29	
Dorenas	1.00	5	25	0.40	17	*	1	*	16	
Dunstable	0.49	3	26	0.28	1	3.6	2	3.5	19	
Grassy Lake										
Jumping Pound	4.52	6	23	3.50	28	16.0	2	8.5	8	
Loch Sloy										
Lyndon	2.45	3	27	1.20	9	2.1	1	2.1	28	
Lincham						20.3	3	10.5	27	
La Pearl										
Lethbridge	1.03	4	25	0.55	8	*	2	*	8-18	
Macleod	0.51	2	26	0.50	7	10.0	3	6.0	28	
Mayeroff	0.61	3	24	0.28	23	12.7	4	6.5	23	
Nateby										
Nanton	1.00	2	27	0.90	8	9.0	2	5.0	28	
Okotoks	R	1	30	R	7	*	1	*	28	
Pekisko	1.02	2	28	0.65	8	16.0	3	7.0	28	
Ponoka										
Sion										
Seven Persons						5.5	2	3.0	8	
Tilley										
Writing-on-Stone (Coutts)	0.31	2	27	0.20	8	2.8	2	1.9	9	
SASKATCHEWAN—										
Aberfeldy	0.07	2	26	0.07	8	*	1	*	19	
Gull Lake	0.95	2	26	0.75	8	9.3	3	4.0	0-17	
Gull Lake (Fks. Swift Cr.)	0.49	1	28	0.49	7	5.0	2	3.0	8	
Last Mountain										
Maple Creek	0.93	2	28	0.78	9	*	1	*	8	
Meadow Lake										
Willow Creek (Battle Cr.)	0.39	2	29	0.34	9					
MANITOBA—										
Cartwright	0.69	4	26	0.28	27	6.0	1	6.0	27	
Deloraine	0.72	5	24	0.28	9	2.0	2	1.5	26	
Norquay (Swan Lake)	0.72	3	27	0.37	6	8.0	1	8.0	29	
Rapid City	0.17	3	26	0.15	5	*	2	*	10-28	
Rose Bank										
ONTARIO—										
Deer Park	2.17	6	25	0.57	18					
Dutton	3.82	7	24	0.33	18					
Ennisdale	4.17	15	15	0.89	23	5.0	1	5.0	31	
Fort Frances	1.79	5	26	0.82	29					
Georgetown	2.12	12	19	0.45	23					
Grantham	3.01	6	22	1.45	23					
Grand Valley	1.85	8	23	0.49	19					
MacCoe	3.07	4	27	1.88	25					
Princeton	3.17	7	24	0.95	22					
Sydenham	3.33	6	24	0.93	18					
Strathroy	1.83	6	24	0.61	18					
Watford	2.92	8	23	0.55	11					
Westport	2.81	6	25	0.75	23					
Westminster	2.88	6	24	0.91	19					
Wooler	5.42	6	24	2.07	23					
Wesley	2.40	13	18	0.80	19					
Wattenwyl	4.00	11	19	0.95	12	*	1	*	30	
Warton	3.56	7	24	1.10	31					
QUEBEC—										
Lucerne										
Perkins Mills	3.72	8	23	1.57	24					
Quinze Dam	3.65	5	25	1.30	25	0.3	1	0.3	15	
Timiskaming	2.87	8	23	0.70	12					
NEW BRUNSWICK—										
Point Escomme	3.73	7	24	1.42	26					
NOVA SCOTIA—										
Big Mushamush Lake (Ma-										
honey)										
Kentville										
Milton	5.96	—	—	—	—					
Mushamush River (Mahoney)										
Napton	1.67	9	22	0.88	2					
South Alton	2.60	9	22	1.21	2					
White Rock	3.06	6	24	1.75	2	*	1	*	15	

## a Barometer not reduced to sea level

a Barometer not reduced to sea level

[illegible]

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
OCTOBER 1912.

STATION.	Hours Ending																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.....				.02	.05	.14	.32	.47	.54	.57	.64	.54	.41	.11				
Salmon Arm.....					.05	.21	.29	.38	.47	.45	.42	.41	.31	.12				
Nanaimo.....																		
Vancouver.....				T	.08	.21	.37	.45	.47	.19	.44	.42	.42	.24				
Agassiz.....					.03	.23	.27	.27	.31	.27	.27	.24	.18	.04				
Tranquille.....																		
Summerland.....					.14	.28	.41	.45	.44	.48	.50	.42	.30	.11				
Kamloops.....					.04	.28	.32	.41	.47	.46	.51	.47	.35	.01				
Edmonton.....				T	.14	.49	.51	.61	.58	.50	.50	.52	.54	.16				
Lethbridge.....					.29	.52	.61	.62	.68	.75	.67	.63	.57	.24				
Lacombe.....					.11	.45	.60	.70	.71	.65	.63	.55	.35	.03				
Medicine Hat.....																		
Fort Dunvegan.....						.06	.13	.33	.37	.56	.58	.23	.10	T				
Fort Vermilion.....				T	.08	.21	.34	.37	.40	.45	.42	.43	.40	.22	.05			
Battleford.....					.02	.26	.50	.57	.58	.59	.60	.57	.49	.37	.11			
Indian Head.....					.03	.35	.46	.45	.49	.54	.48	.47	.37	.06				
Moosejaw.....					.51	.49	.53	.55	.55	.60	.61	.55	.47	.05				
Scott.....				.16	.42	.57	.61	.63	.65	.67	.67	.50	.25	.08				
Rosethorn.....					.12	.32	.44	.45	.41	.45	.45	.41	.35	.07				
Brandon.....					.08	.45	.64	.61	.64	.65	.57	.51	.29	.02				
Winnipeg.....					.26	.59	.63	.57	.19	.47	.54	.51	.23					
Haileybury.....				.02	.22	.46	.57	.52	.50	.45	.44	.44	.38	.28	.05			
Woodstock.....																		
Lindsay.....					.03	.26	.57	.57	.52	.51	.51	.53	.49	.02				
Barrie.....					.20	.19	.52	.50	.44	.46	.54	.49	.45	.17				
Toronto.....					.25	.50	.61	.63	.63	.61	.61	.52	.44	.28	T			
Kingston.....					.16	.54	.62	.62	.65	.59	.59	.54	.48	.07				
Ottawa.....					.31	.54	.61	.64	.66	.70	.66	.57	.56	.30				
Montreal.....				.02	.34	.57	.58	.58	.65	.66	.67	.62	.60	.24				
Cap Rouge.....					.06	.29	.30	.37	.40	.36	.33	.28	.27	.07				
Quebec.....					.10	.32	.38	.44	.41	.42	.45	.37	.38	.17				
Sherbrooke.....					.38	.53	.60	.55	.52	.55	.54	.53	.41	.27				
Fredericton.....					.16	.47	.48	.57	.59	.57	.55	.58	.55	.27				
Charlottetown.....					.14	.39	.48	.49	.48	.56	.55	.50	.43	.25				
Napan.....					.12	.42	.54	.53	.55	.58	.55	.55	.49	.37	.04			

	Victoria.	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosethorn.	Brandon.	Winnipeg.	Haileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sherbrooke.	Fredericton.	Charlottetown.	Napan.
Registered duration in hours.....	118	97	...	111	65	...	112	104	150	173	149	...	64	105	144	115	144	161	196	159	136	134	...	130	132	157	150	173	170	87	107	153	149	132	143
Percentage of possible duration %..	35	29	...	33	19	...	33	31	45	51	45	...	19	33	43	34	43	48	33	41	41	40	...	45	39	46	44	51	54	26	32	45	44	39	45
Difference from average %.....	+9	—	...	—12	—	...	—	—	—	—	—	...	—	—5	—4	—	—	—	+2	+3	—	—	...	—2	+3	+2	+4	+16	+13	—	—	—	+0	—	—
Maximum percentage in one day %..	89	80	...	88	80	...	88	75	90	94	85	...	76	87	10	77	80	97	83	81	88	91	...	81	84	86	81	90	95	81	83	99	91	89	91
Date of maximum.....	6	5	...	6	11	...	11	20	24	31	24	...	13	14	24	15	25	12	12	14	21	10	...	5	5	16	21	16	20	21	21	22	29	22	31
Number of days completely clouded.....	7	9	...	8	18	...	8	8	5	3	4	...	15	15	7	9	8	6	11	5	5	1	...	5	6	5	4	5	4	12	8	3	7	11	14

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF OCTOBER, 1912

STATION	DIRECTION OF WIND FROM								Total num- ber of Obs- vations	
	N.	N.E.	S.E.		S.	S.W.	W	N.W.		
ALBERTA—										
Athabasca Landing.....	0	0	4	1	6	2	15	3	0	31
Didsbury.....	0	0	1	0	5	10	3	11	0	30
Endiang.....	1	2	2	15	6	0	2	3	0	31
Halkirk (Emsburg).....	4	2	0	5	17	16	8	10	0	62
Hillsdown.....	0	1	1	4	11	8	1	24	12	62
Loveland.....	2	9	1	13	1	17	9	19	0	62
Macleod.....	3	2	0	0	1	2	45	3	6	62
Pakan (Victoria).....	4	6	1	0	3	15	21	11	1	62
Ranfurly (Waitefield).....	5	2	11	8	6	10	31	13	7	93
SASKATCHEWAN—										
Chaplin.....	0	8	0	1	1	0	20	0	31	
Crescent Lake.....	1	5	0	2	6	6	7	4	0	31
Estevan.....	3	3	2	2	5	3	5	8	0	31
Fort Qu'Appelle.....	2	2	10	6	7	3	14	18	0	62
Grenfell (Brownhill).....	2	8	1	8	5	20	2	16	0	62
Indian Head.....	7	6	3	1	9	22	10	27	8	93
Larchmount (Glenbryan).....										
Moosomin.....	1	0	0	7	6	0	4	13	0	31
Muenster (St. Peter's Monastery).....	0	13	0	0	0	17	0	32	0	62
Onion Lake.....										
Pense (Gatesgarth).....	1	0	0	5	1	9	8	7	0	31
Waseca.....	0	2	2	2	0	5	15	5	0	31
MANITOBA—										
Berens River.....										
Brandon.....	2	15	1	2	1	23	14	24	11	93
Hillview.....	6	10	4	5	0	20	13	32	0	90
Moose Horn Bay (Athensville).....	9	9	4	4	8	5	3	18	2	62
Morden.....	4	4	0	4	5	13	16	9	7	62
Oak Bank.....	4	0	0	2	1	8	3	13	0	31
Stony Mountain.....										
ONTARIO—										
Agincourt.....	0	2	14	6	1	40	5	23	2	93
Alton.....	9	0	10	10	26	13	24	1	0	93
Beatrice.....	7	0	0	5	16	7	4	17	37	93
Biram.....	5	0	5	7	12	10	3	17	3	62
Clinton.....	6	1	0	14	10	12	9	10	0	62
Cottam.....	16	0	2	4	25	1	13	0	1	62
Gravenhurst.....										
Lindsay.....	12	4	8	5	15	25	10	13	1	93
North Bruce.....	14	0	12	2	37	10	7	11	0	93
Orillia.....	2	0	3	1	8	7	4	4	2	31
Owen Sound.....										
Point Clark.....	5	2	10	4	13	14	7	7	0	62
Port Dover.....	4	5	7	3	1	15	12	15	0	62
Scarboro Junction.....										
Stoney Creek.....	1	6	16	2	1	24	89	4	0	93
Uplands.....	11	0	7	0	10	0	34	0	0	62
Wexford.....	2	0	6	1	2	6	4	4	6	31
QUEBEC—										
Abitibi.....	13	2	1	3	32	7	21	12	2	93
Anticosti, W. Pt.....	8	6	13	5	22	4	7	28	0	93
Anticosti, Heath Point.....	12	5	9	13	1	9	19	21	4	93
Bicquet.....	10	16	0	0	11	18	22	14	2	93
Brome.....	3	3	10	0	18	10	43	0	0	87
Cape Chatte.....	2	0	17	0	0	5	47	2	20	93
Cape Magdalen.....	5	3	7	2	20	8	2	36	10	93
Cap Rouge.....	7	7	0	0	0	0	0	17	0	31
Chicoutimi.....	0	16	0	16	0	17	0	20	24	93
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	1	0	8	3	0	0	16	2	0	30
Moncton.....	0	1	5	4	0	3	1	15	2	31
Pt. Lepreaux.....	11	2	6	8	3	19	13	19	0	81
Sussex.....	0	1	0	3	0	4	2	6	15	31
NOVA SCOTIA—										
Kentville.....	1	2	5	2	6	11	24	10	0	62
Parrsboro.....										
Port Hastings.....	0	1	0	9	0	9	0	12	0	31
Sable Island, E. Pt.....										
Truro.....										
Whitehead.....	15	2	13	2	12	34	6	9	0	93



*Thunder recorded:*

1. Dunstable, Sion, Campsie, Point Lepreaux, Halifax.
2. Halifax.
3. Pemberton Meadows.
4. St. George's, Nfld.
5. Cartwright, Kakabeka Falls, Oakbank, Treherne, Prospect, Bermuda.
6. Treherne.
7. Fredericton, Hydraulic.
- 8.
9. Birnam, Lucknow.
10. Halkirk.
11. Westport, Emsdale, Deer Park, Perkin's Mills, Aurora, Paris, Clinton, London, Guelph.
12. Georgetown, Wooler, Wesley, Beatrice, Rutherglen, Brome, Agincourt, Madoc, Wexford, Birnam, Lucknow, Orillia, Almonte, Renfrew, Sherbrooke, London.
13. Dutton, Emsdale, Rutherglen, Halifax.
14. Rutherglen.
15. Kentville, Khtađa Valley, Sydney.
16. Cranbrook, Crawford Bay.
17. Rapid City, Nakusp, Nelson, Banff.
18. Georgetown, Windsor, N.S.
- 19.
20. Kakabeka Falls.
- 21.
22. Ladner, Vancouver.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
29. Rutherglen.
- 30.
- 31.



*Auroras recorded:*

- 1.
- 2.
3. Kingston.
- 4.
5. Quebec.
- 6.
- 7.
8. Kingston.
9. Kingston.
10. Kingston.
11. Sion IV, Campsie IV, White Shore Lake IV, Kingston, Beaver Lodge IV.
12. Waseca, Waitefield IV, Halkirk, Campsie IV, Mistassini III, Aitkensville IV, Kingston, Fort Vermilion I, Fort Vermilion VI.
13. Waseca, Muenster IV, Sion IV, Waitefield IV, Campsie IV, Mistassini IV, Aitkensville IV, Winnipeg II, Kingston, Fort Vermilion VI.
14. Waseca, Crescent Lake IV, Sion IV, Waitefield I, Aitkensville IV, Aweme III, Fredericton II, Sherbrooke IV.
15. Sion IV, Waitefield III, Mistassini III.
16. Crescent Lake IV, Sion IV, Waitefield IV, Mistassini IV, Aitkensville IV.
17. Melfort IV, Crescent Lake IV, Sion IV, Elko.
18. Sion IV.
19. Salt Spring Island.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
27. White Shore Lake IV.
- 28.
- 29.
- 30.
- 31.

## FORECASTS FOR OCTOBER 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1354. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	90	58	18	14	74.4
Saskatchewan.....	93	68	15	10	81.2
Manitoba.....	96	86	7	3	93.2
Lake Superior.....	119	89	27	9	81.1
Lower Lake Region.....	125	99	18	6	87.8
Georgian Bay.....	123	105	11	7	89.8
Ottawa Valley.....	108	88	15	5	88.4
Upper St. Lawrence.....	108	91	12	5	89.8
Lower St. Lawrence.....	124	99	17	8	86.7
Gulf.....	123	98	15	10	85.8
Maritime Provinces West.....	123	98	20	5	87.8
Maritime Provinces East.....	124	105	13	6	89.9
Total.....	1354	1075	188	88	86.6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
Nov. 25th, 1912.



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

NOVEMBER, 1912

No. 11

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

The maximum temperature occurred about the 12th or 13th and the 16th or 17th, on Vancouver Island and along the Fraser River, in a few instances exceeding  $58^{\circ}$ . In the Okanagan Valley and the Kootenays it occurred between the 18th and 23rd, and in many cases did not reach  $50^{\circ}$ . The coldest days were the 27th, 28th and 29th. On these days along the Upper Fraser River the minimum temperatures ranged between zero and  $15^{\circ}$ ; in the Okanagan Valley and the Kootenays between  $10^{\circ}$  and  $25^{\circ}$ ; and in the southwestern districts between  $27^{\circ}$  and  $32^{\circ}$ . The mean temperature was above average except on Vancouver Island, where there was a deficiency of less than  $1^{\circ}$ . Elsewhere in the Province excess ranged between  $1^{\circ}$  and  $4^{\circ}$ .

### THE WESTERN PROVINCES.

The month was exceptionally mild, especially in Saskatchewan and Manitoba, the excess over normal ranging between  $5^{\circ}$  and  $12^{\circ}$ . From the 9th to the 22nd and on the 24th and 27th, maximum temperatures ranged between  $40^{\circ}$  and  $65^{\circ}$ , southerly winds having prevailed during the greater part of this period. The coldest days were the 2nd, 5th, 16th, 27th, 29th and 30th, on which days the temperature fell below  $10^{\circ}$  at nearly all stations except the most southerly. At some northern stations temperatures below zero were recorded on the last two days.

### ONTARIO.

In the peninsula of Ontario the mean temperature was from  $2^{\circ}$  to  $4^{\circ}$  above normal, and over the remainder of the Province about  $2^{\circ}$ . The coldest days were the 3rd, 16th, 22nd to 29th. The lowest temperature of the month was recorded on the 27th and 28th, when temperatures below zero were recorded in Algoma and Thunder Bay and at some points near the Ottawa River, and as low as  $7^{\circ}$  in Southern Ontario. In the southern counties, however, the minimum did not generally fall below  $20^{\circ}$ . On the 6th, 7th, 11th to 14th, and 21st, maximum temperatures exceeding  $50^{\circ}$  were recorded, while at some places in the peninsula  $60^{\circ}$  was exceeded on the 11th and 12th.

## QUEBEC.

Over the greater portion of Quebec the mean temperature exceeded the normal by about 1°. In the northwestern districts the minimum temperature fell below 10° on the 15th, 28th and 30th, while in the Lake St. John district 5° below zero was recorded on the 28th and 29th. Along the St. Lawrence River the temperature fell below 10° on the 29th only.

## THE MARITIME PROVINCES.

In Cape Breton the mean temperature was a little below the average, but elsewhere in the Maritime Provinces was from 1° to 3° above. 60° was exceeded on the 6th, 7th, 8th, while the lowest temperature occurred on the 20th, and did not generally fall below 15°.

## PRECIPITATION.

### BRITISH COLUMBIA.

In portions of the Kootenays and Okanagan Valley the precipitation exceeded the average by a small amount, but over the remainder of the Province there was a small deficiency.

### THE WESTERN PROVINCES.

Rain was recorded in some places in Saskatchewan on the 9th, while snow was recorded on from 4 to 8 days in this and the other provinces. Total precipitation was, however, much below average.

### ONTARIO.

In Rainy River, Thunder Bay, Nipissing districts, the counties bordering on Lakes St. Clair and Erie, and along the Upper Ottawa River, there was a deficiency of from 1 to 2 inches. Along the Upper St. Lawrence and Lower Ottawa Rivers and in the Lake Huron and Georgian Bay counties there was an excess of from 1 to 4 inches.

## QUEBEC.

In Western Quebec the precipitation was from 1 to 2 inches in excess of normal, but in Eastern Quebec there were local deficiencies.

## THE MARITIME PROVINCES.

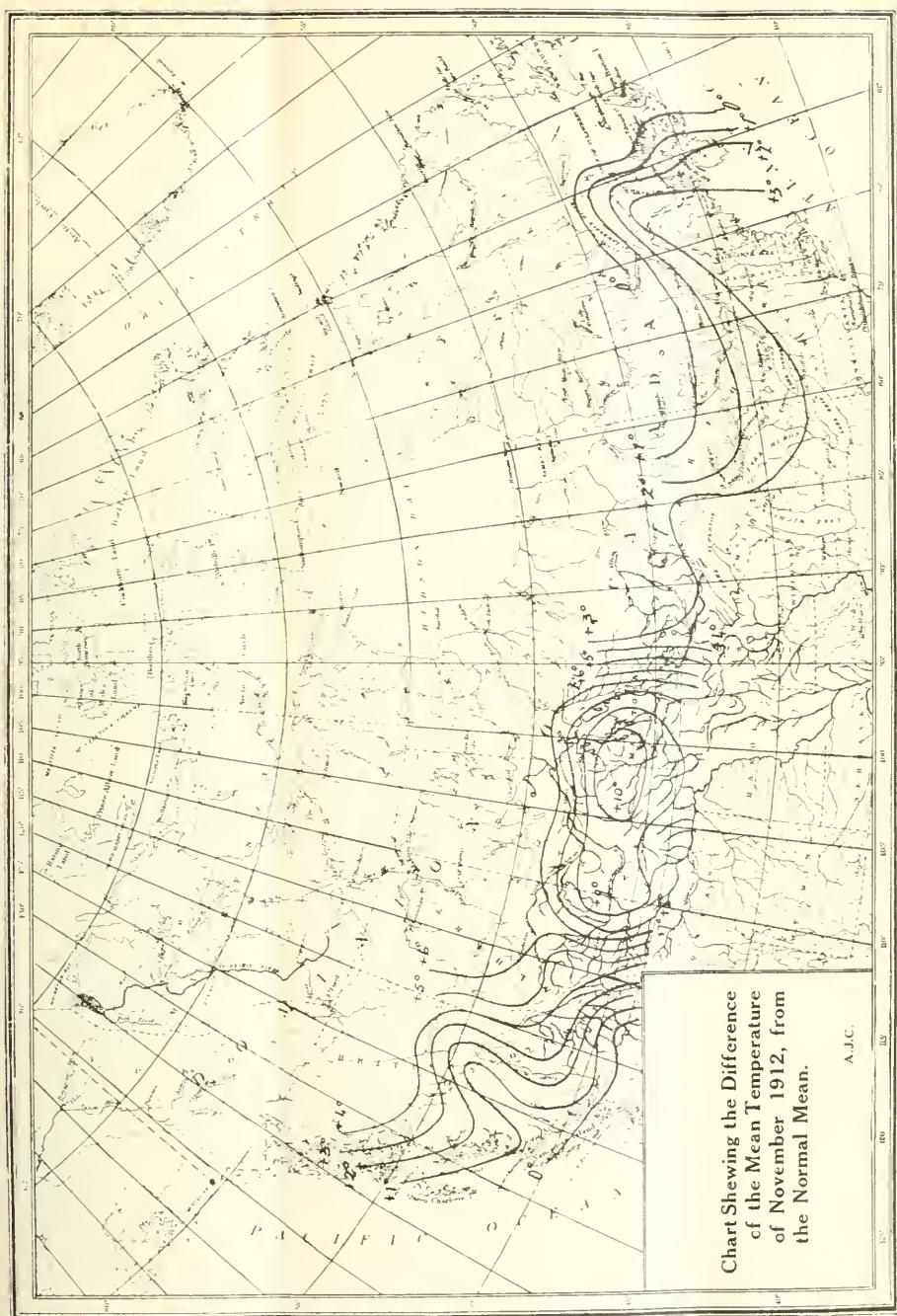
In New Brunswick a small excess was recorded in most cases, but in Nova Scotia and Prince Edward Island there was a general deficiency, which was quite large in Cape Breton.

## ATMOSPHERIC PRESSURE.

Taking the results at the telegraph reporting stations for November as indicative of the conditions throughout the Dominion, it would appear that the mean value of the atmospheric pressure was subnormal except very locally in Vancouver Island, B.C., and near the west end of the Bay of Fundy in New Brunswick, where the normal was slightly exceeded. Negative departures from average were generally more than  $-0.05$  of an inch, and in the Western Provinces exceeded  $-0.10$  of an inch in many localities.

## HIGH AREAS.

Ten areas of high pressure were charted. Two first appeared in the vicinity of Hudson's Bay, both of feeble energy, the remaining eight moved into the United States from the Pacific Ocean, thence to the South Atlantic States, where they either dispersed or else passed out to the Atlantic. The general point of entry on to the continent, and the subsequent path of these highs was no doubt the cause of the very mild weather which prevailed during the month over the Dominion.



## LOW AREAS.

Thirteen areas of low pressure were charted. Two first appeared on the Alaskan coast, four on the coast of Northern British Columbia, one in the interior of British Columbia, one in Alberta, three in the Pacific States, one in the Gulf of Mexico and one off the Florida coast. The eleven areas from the northwestern and western portions of the continent travelled either over or well to the northward of the Great Lakes, usually the latter, while of the remaining two, the first one passed over the Atlantic States to the Maritime Provinces, and the second up the ocean some distance off the Atlantic States coasts to Newfoundland, skirting the Cape Breton coast. This latter system was of remarkable energy, causing gales of great violence over the eastern portions of the Maritime Provinces and also in Newfoundland. Irrespective of this great system, the areas were with few exceptions of very moderate energy, and in consequence the gales which were experienced were fewer and of much less force than usually occur during the month of November.



## WINDS, NOVEMBER, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in one hour.	Number of days of Gales.	Number of days of Strong Winds.	Number of days of Fresh Winds.	GENERAL DIRECTION
BRITISH COLUMBIA.							
Victoria .....	5334	457					N. & S.E.
ALBERTA.							
Calgary .....	3468	213	28			10	N.W.
Edmonton .....	2700	301	25				N.W.
SASKATCHEWAN.							
Qu'Appelle .....	8142	488	32	2			SW. & NW.
MANITOBA.							
The Pas .....	5630	412	30	1		26	W.
Winnipeg .....	7943	426	25		8	13	S.E., S., S.W.
ONTARIO.							
Port Arthur .....	7211	522	34	2	8	20	N.W.
Perry Sound .....	7206	414	23		3	18	SW.
Southampton .....	8541	526	24	2	12	16	SW. & NW.
Woodstock .....	3948	315	19		1	12	SW.
Toronto .....	16370	719	40	5	18	7	W.
Kingston .....	8659	605	36	4	15	9	SW., W., NW.
OTHER.							
Montreal* .....	9488	539	45	4	8	18	SW.
Quebec .....	11136	948	58	6	5	8	W. & N.E.
Father Point .....	11897	840	22	4	13	10	SW. & W.
MARITIME PROVINCES.							
Fredericton .....	5557	545	26		6	20	W. & NW.
St. John .....	5010	641	39	1	3	1	N.W.
Pt. Lepreau .....	12772	776	59	13	15	1	N.W.
Yarmouth .....	19094	790	50	5	5	20	SW.
Halifax .....	8053	677	44	3	1	10	N.E., NW., W., SW.
Flat Point .....	11904	783	62	9	15	6	N. & W.
Charlottetown .....	5461	362	26			10	SW.

\* 25 days record only

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1912.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.							
				Mean.	Difference from average.	Y's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	Days with .01 or more.	No. of far days.	No. of aurora.	No. of thunderstorms.
BRITISH COLUMBIA—																		
S. Vancouver Island																		
Alberni (Beaver Creek)	49 15	124 49	00	41.2	+ 0.0	17 58.0	5	29.0	14	10.0	13.54	+1.36	2.75	23	7	...	1	...
Clayoquot	49 11	125 55	27	44.8	- 0.7	13 56.0	15	32.0	27	10.0	18.85	-1.28	2.01	25	5	...	...	...
Cloose	48 25	123 42	70	43.6	—	6 55.0	12	27.0	27-28	9.9	17.03	—	2.13	19	11	...	...	...
Cowichan (Tzoubelein)	49 10	123 37	425	43.1	+ 0.4	12 58.0	17	29.0	27-29	9.6	8.71	+0.11	1.37	21	9	...	...	...
Nanaimo	49 17	124 12	30	42.3	—	1 54.0	17	28.0	27-28	11.1	7.17	—	0.95	25	5	...	...	...
Nanose Bay	48 50	123 20	30	42.6	—	4 52.0	16	30.0	28	8.4	7.21	—	1.09	24	6	...	...	...
Salt Spring Island	48 41	123 44	25	43.4	—	2 57.0	16	29.0	27-28	10.9	6.87	—	0.80	17	13	...	...	...
Sooke	48 24	123 19	85	45.2	- 0.6	20 55.4	16	30.3	28	8.2	5.04	-1.03	0.59	22	8	...	1	...
Victoria	48 24	123 19	85	45.2	- 0.6	20 55.4	16	30.3	28	8.2	5.04	-1.03	0.59	22	8	...	1	...
N. Vancouver Island																		
Holberg	50 39	128 18		42.8	—	3 54.5	13	33.6	8	6.6	24.55	—	5.41	23	7	...	...	...
Saanich Bay	50 37	126 53		39.5	—	5 30.0	15-16	30.0	9	5.9	27.22	—	3.00	23	7	...	...	...
Triangle Island	50 52	129 5	680	43.3	—	1 50.0	16	38.0	6-10	5.6	9.62	—	1.65	8	22	...	...	...
Winter Harbour (Quitsino)	50 32	127 40		43.1	+ 1.1	16 55.0	2-17	28.0	26	12.2	14.73	—	2.71	24	6	...	1	...
Lower Fraser River																		
Agassiz	49 14	121 31	52	42.4	+ 1.0	22 55.0	1.7	30.0	14	15.0	13.82	+5.13	1.12	26	4	...	...	...
Chilliwack	49 10	121 57	21	42.0	+ 1.0	9 55.0	17	30.0	27	8.5	10.81	—	1.65	23	7	...	...	...
Hope	49 23	121 25	500	37.6	—	3 30.5	16	26.0	27	12.1	10.19	—	1.81	21	9	...	...	...
Ladner	49 05	123 4	44.9	+ 1.2	12 50.0	2	28.0	25	11.7	3.46	-0.59	0.55	1.82	12	...	...	...	
New Westminster	49 13	122 54	330	42.3	+ 0.7	25 54.0	12-16	29.0	14	7.2	8.32	-1.70	1.26	20	10	...	1	...
North Nicomen	49 12	122 2	59	43.1	+ 0.4	19 61.0	13.17	31.0	27	10.4	13.19	+0.56	1.76	21	9	...	...	...
Pemberton Hatchery	50 20	122 33		38.0	—	5 48.0	17	26.0	28	4.8	5.49	—	1.13	18	12	...	...	...
Ruskin (Stave Falls)	49 16	122 23	125	42.7	—	3 55.0	13-18	31.0	25-28	9.2	13.57	—	1.60	20	10	...	...	...
Penticton	49 21	123 17		43.1	+ 0.8	17 53.0	13	28.0	14-18	10.6	6.25	-0.32	0.90	20	10	...	...	...
Steveston (Garry Point)	49 17	123 5	136	43.8	+ 1.5	12 52.9	12	31.2	26	6.7	9.21	-2.24	1.38	23	7	...	1	...
Vancouver	49 17	123 5	136	43.8	+ 1.5	12 52.9	12	31.2	26	6.7	9.21	-2.24	1.38	23	7	...	1	...
Upper Fraser River																		
Babine Lake	55 38	126 26		29.1	—	4 42.0	4	2.0	39	13.2	7.00	—	7.90	1	29	...	...	...
Barkerville	53 02	121 25	4180	26.7	- 1.0	24 44.0	16	8.0	36	11.6	7.00	-0.81	7.00	7	23	...	...	...
Chilcotin (Big Creek)	51 40	123 0	3100	26.5	—	8 52.0	16	3.0	28	19.4	0.42	—	0.15	4	26	...	...	...
Fort George	50 29	123 0		29.9	—	1 52.0	16	0.0	30	17.9	1.50	—	0.51	11	19	...	...	...
Fort St. James (Stunrts Lake)	54 28	124 12	2280	28.1	+ 3.9	19 44.0	17	4.5	15	14.4	0.80	-1.06	0.14	11	19	...	...	...
Hydraulic	54 28	124 12	2280	34.9	—	1 55.0	16	15.0	25-30	16.7	0.70	—	0.13	9	21	...	...	...
Queensville	52 59	122 30	1700	31.9	+ 0.9	17 56.0	17	10.0	28	16.0	0.97	-0.28	0.40	6	24	...	...	...
Okanagan Valley																		
Hedley	49 35	120 10	1771	36.5	—	9 52.0	17	21.0	28	12.4	0.55	—	0.25	8	22	...	...	...
Hedley (Nickel Plate)	49 35	120 10	1771	36.5	—	9 52.0	17	21.0	28	12.4	0.55	—	0.25	8	22	...	...	...
Keremeos	49 15	119 29	1200	37.7	—	4 54.0	18	21.0	27-29	11.9	0.58	—	0.50	7	23	...	...	...
Kelowna (Okanagan Mission)	49 15	119 29	1200	37.7	+ 0.1	13 49.0	18	21.0	27-29	11.9	0.58	+0.19	0.24	10	20	...	...	...
Penticton	49 29	119 45		39.5	—	6 54.0	19	21.5	25	13.4	1.02	—	0.23	10	20	...	...	...
Princeton	49 29	120 29	1650	32.2	+ 0.9	17 47.0	20	13.0	26	12.3	0.91	-1.04	0.20	8	22	...	...	...
Summerland	49 36	119 40	1100	36.3	—	6 52.0	16	22.0	26-28	11.3	1.15	—	0.60	5	25	...	...	...
Vernon (Coldstream Ranch)	50 14	119 15	1246	36.0	+ 1.6	18 50.0	7-19	20.0	26	11.8	1.38	-0.67	0.45	11	19	...	...	...
West Kootenay																		
Crawford Bay	49 45	116 45	2000	36.2	—	2 47.0	22	19.0	27-28	9.6	3.41	—	0.63	11	19	...	...	...
Creston	49 29	118 27		35.6	—	1 48.0	8	19.0	25-26	12.1	3.71	—	1.05	15	15	...	...	...
Grand Forks	49 2	118 27		34.3	—	2 51.0	19	15.0	27	10.7	1.90	—	0.32	12	18	...	...	...
Greenwood	49 5	118 49		36.4	—	1 50.0	19	20.0	27-29	11.9	1.79	—	0.47	8	22	...	...	...
Howser	49 52	117 0	1752	36.4	—	1 49.0	14	24.0	26-28	8.0	2.24	—	0.82	18	12	...	...	...
Keslo	49 52	117 0	1752	34.0	—	3 47.0	14	18.0	28	10.6	5.00	—	1.61	12	18	...	...	...
Nakusp	49 52	117 0	1752	31.8	—	1 47.0	19	21.0	28	8.3	2.75	—	0.32	19	11	...	...	...
Needles	49 40	118 9		31.8	—	1 47.0	19	21.0	28	8.3	2.75	—	0.32	19	11	...	...	...
Nelson	49 29	117 21	1760	36.3	- 1.8	9 49.0	19	18.0	26	10.2	3.40	—	0.65	15	13	...	...	...
Roseland	49 5	117 48	3400	32.9	—	8 43.0	19	20.0	27	6.5	3.54	—	0.60	11	19	...	...	...
East Kootenay																		
Akamina	49 10	114 20	4150	32.5	—	4 48.0	18-22	9.0	27	15.2	1.16	—	0.57	9	21	...	...	...
Cranbrook	49 30	115 50		29.5	+ 3.1	17 51.0	14	17.0	27	9.4	2.37	+0.63	0.70	8	22	...	...	...
Tobacco Plains (Elko)	50 34	116 14	2684	29.5	—	4 46.0	22	7.0	28	11.4	0.95	—	0.40	5	22	...	...	...
Wilmer	50 34	116 14	2684	29.5	—	4 46.0	22	7.0	28	11.4	0.95	—	0.40	5	22	...	...	...
Thompson River																		
Ashcroft	50 32	119 7	1180	36.9	—	1 53.0	7-13	18.0	27	16.6	0.50	—	0.10	11	19	...	...	...
Enderby	50 32	119 7	1180	35.7	+ 4.4	9 48.0	13	21.0	27	10.9	1.96	+0.87	0.40	16	14	...	...	...
Kamloops	50 41	120 29	1245	37.7	+ 2.7	22 52.0	13	20.0	26	10.7	0.82	-0.30	0.19	11	19	...	...	...
Nicola Lake	50 9	120 39	2120	35.1	+ 2.7	17 51.0	5-23	30.0	5-30	14.8	1.20	+0.11	0.30	4	26	...	...	...
Pemberton Meadows	50 42	119 35	1152	36.6	—	1 55.0	6	14.0	30	11.2	7.92	—	1.88	20	10	...	...	...
Salmon Arm	50 42	119 35	1152	36.3	—	6 50.0	17	21.0	28	10.9	2.41	—	0.55	13	17	...	...	...
Salmon Arm (Exp. Farm)	50 41	120 29		36.4	—	2 48.0	17-18	21.0	28	11.0	2.69	—	0.34	9	21	...	...	...
Tranquille	50 41	120 29		38.9	—	4 55.0	17	24.0	28	10.3	0.14	—	0.69	2	28	...	...	...
North Columbia River																		
Glacier	51 14	117 29	4072	27.2	- 1.8	10 43.0	24-27	8.0	26	10.6	10.95	+2.27	1.30	23	7	...	...	...
Golden	51 0	118 6	1476	29.9	+ 1.7	11 45.0	19	9.0	28	10.8	2.10	-0.73	0.80	8	22	...	...	...
Revelstoke	51 16	116 55	2550	34.5	+ 0.1	15 46.0	21-23	17.0	28	11.4	5.98	+0.54	1.00	16	14	...	...	...



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, '12.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.					PRECIPITATION.										
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.
SASKATCHEWAN—																			
Qu'Appelle River																			
Brownhill (Greenell)	50 23	102 53	1957	31.8	+ 8.1	13	56.0	3	8.0	30	20.0	0.55	-0.43	0.50	2	28			
Brownlee	50 45	106 0		27.4	—	1	49.8	18	7.5	27	16.3	0.12	—	0.10		28			
Burlington	50 59	102 25	1658	28.1	+13.2	9	55.2	10	9.6	27	19.9	0.08	-0.94	0.07	2	13			
Estevan	49 12	103 4	1858	32.0	+ 8.0	13	60.0	10	4.0	30	20.5	0.20	-0.19	0.20	1	29			
Fort Qu'Appelle	51 5	103 24		30.4	—	1	61.2	9	7.0	27	20.2	0.21	—	0.15	3	27			
Hubbard (Drumague)	52 15	103 24																	
Humboldt	51 12	105 9		29.1	—	2	53.0	9	- 5.0	30	20.0	0.18	—	0.13	28				
Imperial	51 22	103 23		29.4	+ 8.9	21	54.0	3	8.0	27	18.9	0.35	-0.43	0.15	1	29			
Indian Head	50 28	103 40	1924	28.9	—	2	60.0	16	- 2.0	30	18.9	0.20	—	0.20	1	29			
Kamsack	49 43	102 2	2064																
Manor.	50 21	105 35	1759	33.2	+12.2	17	64.0	9	8.0	27	23.7	0.06	-0.23	0.03	0	30			
Moose Jaw	50 0	101 37	1884	29.5	+ 8.4	10	65.0	19	5.0	24	20.3	0.12	-0.60	0.20	0	30			
Moosemin	52 16	105 9	1870	27.4	+ 7.3	6	50.0	9	4.0	28	12.9	0.20	—	0.20	1	29			
Muenster (St. Peter's Mon.)	52 25	105 9		26.7	—	2	47.0	18	6.0	27	15.4	0.22	—	0.15	2	28			
Pilgus	50 20	105 0	1879	31.0	+10.8	14	64.0	10	- 5.0	30	24.9	0.05	-0.42	0.05	1	29			
Pense (Gatesgarth)	50 30	103 47	2115	30.6	+ 9.6	28	60.0	9	7.0	27	19.4	0.48	-0.51	0.29	2	26			
Qu'Appelle	52 4	104 14	1690	27.0	—	2	44.0	17	8.0	26	14.5	0.14	—	0.12	2	28			
Quail Lake	50 27	104 37	1885	29.2	+10.1	27	55.0	17	5.0	27	21.5	0.09	-0.43	0.05	3	27			
Regina	51 5	104 57																	
Strauburg	50 39	102 4																	
Yarbo (Fairfield)	49 49	104 9		30.4	—	2	66.0	9	- 1.0	30	24.9	0.20	—	0.20	1	29			
Yellow Grass	51 11	102 29		28.5	—	3	53.0	11	9.0	11	20.1	—	—	—					
Yorkton																			
S. Saskatchewan River																			
Chaplin	50 26	106 39	2202	29.9	+ 7.7	28	59.0	9	- 8.0	30	24.7	0.10	-0.09	0.10	1	29			
East End (Divide)	49 31	108 49		31.9	—	4	55.2	19	8.8	30	20.1	0.13	—	0.08	3	25			
Larchmont (Glenbryan)	49 21	109 29		30.6	—	2	59.0	9-10	0.0	27	26.3	0.20	—	0.20	1	29			
Nashlyn (Kelvinhurst)	51 46	108 10		30.8	—	1	57.0	18	3.0	27	26.7	0.25	—	0.25	1	29			
Oliver	49 54	107 27																	
Rathmullen	51 20	108 57		28.6	—	3	52.0	18	4.8	30	22.5	0.12	-0.12	0.07	3	19			
Swift Current	50 20	107 45	2429	34.5	+ 7.8	26	59.0	10 13	14.0			0.22	-0.43	0.08	5	25			
N. Saskatchewan River																			
Battleford	52 41	108 20	1620																
Lloydminster	53 18	110 0																	
Lusland	52 5	109 34		26.4	—	3	45.5	1	10.0	28	18.9	0.10	—	0.10	1	29			
Onion Lake	53 52	108 59																	
Prince (Monta)	51 0	108 20	1700	23.2	—	5	40.0	18	1.0	27	17.9	0.58	—	0.40	3	9			
St. Walburg	51 46	108 10		18.7	—	1	47.0	17	8.2	29	16.5	0.20	—	0.15	2	28			
Scott (Ex. Farm)	51 59	109 30		27.0	—	1	37.0	15-16	-27.0	30	23.5	0.85	—	0.50	3	27			
Waseca	53 6	109 29		21.0	—	4	41.0	17-18	- 8.0	30	14.1	0.40	—	0.40	1	29			
The Saskatchewan Forks																			
Chagness (Star City)	52 32	104 13																	
Duck Lake	52 54	106 20																	
Melfort	52 47	104 30		26.1	—	7	46.0	16	7.0	30	14.3	0.34	—	0.20	3	27			
Prince Albert	53 10	106 0	1432	25.7	+ 7.4	28	55.2	3	9.0	27	15.3	0.90	-0.07	0.70	3	27			
Rosthern	52 40	106 20	1657	24.0	—	2	41.0	18	0.0	29	17.5	0.82	—	0.45	2	28			
Saskatoon	52 15	106 30	1571	28.5	+ 8.7	11	46.2	18	10.7	27	14.9	0.45	-0.05	0.40	2	28			
Lower Saskatchewan River																			
Cumberland House	53 56	102 16																	
Last River	53 17	104 21		23.9	—	2	50.0	13	5.0	30	15.9	—	—	—					
MANITOBA—																			
Qu'Appelle and Assiniboine Rivers																			
Aweme (St. Albans)	49 42	99 35	1180	29.6	+ 1.5	28	54.0	18	4.5	27	18.3	0.26	-0.49	0.15	5	25			
Roseauville	50 25	101 1	1703																
Brandon	49 51	99 57	1176	29.4	+ 8.4	25	54.6	18	4.6	24	19.6	0.10	-0.71	0.10	1	29			
Carberry	49 52	99 20	1258																
Carman	49 31	98 0	872																
Cypress River	49 33	99 3	1232																
Hillview	49 55	100 33	1400	29.0	+ 9.2	27	55.0	3	7.0	27	16.2	0.30	-0.92	0.10	2	28			
Minnedosa	50 15	99 50	1699	28.4	+ 7.3	29	52.6	3	3.7	27	15.8	0.29	-0.73	0.20	4	26			
Ninette	49 24	99 38	1363	32.8	—	1	65.6	19	8.0	27	21.7	—	—	—					
Ninon	49 14	99 51	1649	29.4	—	2	52.1	19	5.4	26	15.0	0.00	—	0.00		30			
Persson	49 11	101 5	1534																
Pipestone	49 34	100 58	1400																
Portage la Prairie	49 57	98 17		29.3	+ 6.5	18	53.0	19	9.0	2	13.9	0.00	-0.58	0.00		30			
Portage la Prairie (2)	49 56	98 17		27.9	+ 9.9	19	61.0	10	3.0	30	16.6	0.17	-0.50	0.17	1	29			
Russell	50 59	101 20		29.0	—	1	53.3	4	5.2	24	18.4	0.00	—	0.00		30			
Souris	49 36	98 40	1212	30.5	+ 9.0	17	52.0	18	9.0	27	12.9	0.09	—	0.08	2	28			
Treherne	49 51	100 55	1444																
Virdee	49 51	100 55	1444																
The Red River																			
Almasippi	49 14	99 20		29.3	- 0.8	17	51.0	18	5.0	2	13.7	0.05	—	0.05	1	29			
Morden	49 11	98 6	978	29.6	—	9	45.0	19	7.0	2	11.9	0.15	—	0.15	1	29			
Oak Bank	49 57	96 42	800	28.3	+ 1.2	16	46.7	18	3.3	27	9.3	0.15	-0.54	0.15	1	29			
Stony Mountain	50 40	97 14	803	27.2	+ 7.4	30	48.6	18-19	10.0	3-27	16.6	—	—	—					
Winnipeg	49 53	97 7	760	28.8	+ 7.8	37	49.3	18	13.8	2	10.2	0.11	-0.97	0.06	5	25			

STATION	TEMPERATURE					PRECIPITATION													
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	Days with 01 or more.	No. of far days.	No. of auroras.	No. of thunderstorms.	
MANITOBA—Continued																			
<i>Dauphin Lake and River</i>	°	'	'																
Dauphin	51	8	164	2	957	30.2	—	6	53	0	18	10.0	27	16.2	T	—	T	30	
Moose Horn Bay (Arkwenville)	51	15	99	33		28.4	—	3	54	4	19	10.1	30	13.0	0.29	—	0.105	8	
Berens River	52	18	97	23	710	25.2	—	1	54	0	28	3.0	28	11.1	0.40	—	0.15	4	
<i>Lake Winnipegosis</i>																			
Swan River	52	6	101	15	1112														
Le Pas	53	49	101	15	890	22.3	—	3	36	0	2	— 8.0	29	12.4	1.65	—	0.80	9	
ONTARIO—																			
The Lake Superior Districts																			
<i>Rainy River</i>																			
Kenora	49	48	94	32	1102	28.2	+	3.6	11	45	0	19	15.0	29	9.8	T	— 21	T	
<i>Thunder Bay</i>																			
Kakabeka Falls	48	29	89	26	912	27.7	—	5	51	0	10	— 3.0	28	18.7	0.79	—	0.21	6	
Port Arthur	48	27	89	12	944	30.4	+	3.5	32	48	4	— 1.0	3	0	0.62	— 81	0.14	7	
Schreiber	48	58	87	13	683	29.1	+	3.0	10	48	4	— 4.2	28	18.1	0.42	—	0.26	7	
<i>Algoma</i>																			
Bruce Mines	46	18	85	35	595	33.6	+	0.6	14	53	0	5-11	8.0	28	15.2	1.73	— 0.11	0.42	8
Copper Cliff	46	30	80	39		31.0	—	5	52	0	11	2.0	28	14.7	2.44	—	1.00	8	
Fort Frances	48	27	93	30		31.8	—	6	52	0	21	8.0	28	13.6	0.69	—	0.25	3	
Porepune	45	40	82	14		25.0	—	2	43	0	4-5	— 2.0	30	17.4	0.04	—	0.15	9	
Providence Bay	48	35	85	16	1252	33.0	—	2	53	0	11	7.0	28	17.1	2.20	—	0.64	6	
White River																			
<i>Nipissing</i>																			
Cochran	49	2	31	0	946	23.0	—	2	45	0	4	5.5	30	12.0	0.57	—	0.30	4	
Haleybury	47	29	79	39	687	29.4	+	1.3	21	52	4	8.7	28	11.7	1.41	— 19	0.25	16	
Montreal River	47	8	79	29		29.5	—	2	55	0	11	2.0	28-30	16.0	0.83	—	0.45	5	
Upper Ottawa River																			
Rutherford (Lake Talon)	46	15	74	48	557	31.3	+	1.4	18	50	5	2.0	28	12.8	2.09	— 2.43	0.55	5	
Stoncliffe (Rockliffe)	46	9	78	6	390	30.8	+	1.4	23	32	0	21	8.0	28	11.9	2.12	— 0.15	0.98	9
Upper St. Lawrence and Lower Ottawa Rivers																			
Almonte	45	12	76	13	390	34.8	—	1	62	2	6	1.7	28	12.0	4.41	—	1.66	6	
Bloomfield	43	59	77	21	260	39.5	+	2.8	13	60	0	7	19.0	28	12.2	2.73	— 0.09	0.70	9
Hillier						46.2	—	1	66	0	20	27.0	3	14.9	4.01	—	1.24	8	



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1912.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION				Days with 01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.	
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.						Heaviest fall in month.
ONTARIO—Continued—																			
West-Central Counties																			
Alton.....	43 51	80 5	1250	33.5	+ 0.3	26	60.2	12	7.7	28	17.9	4.54	+1.67	1.65	9	21	..	1	
Brantford.....	43 10	80 21	750	39.1	+ 2.5	30	62.0	11	18.0	27	15.4	1.67	+1.01	0.89	3	27	..	..	
Elora.....	43 41	80 24	1274	38.4	+ 3.0	16	61.0	11	17.0	28	13.0	4.18	+1.04	1.55	14	16	..	..	
Guelph.....	43 33	80 16	1050	38.0	+ 3.2	27	59.0	11	21.0	28	11.9	2.20	+0.04	0.30	6	24	..	4	
Listowel.....	..	..	..	36.4	+ 3.5	15	56.0	11	12.0	27	13.5	3.48	+0.02	1.05	11	19	..	1	
London.....	42 59	81 13	808	39.2	+ 2.3	28	62.0	13	18.0	28	14.0	5.31	+2.48	1.73	13	17	..	..	
Paris.....	43 12	80 25	849	39.7	+ 3.3	23	60.0	11-12	21.0	28	12.6	2.69	+0.64	1.13	13	17	..	..	
Stratford.....	43 23	81 0	1191	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Woodstock.....	43 8	80 47	980	38.8	+ 3.5	40	59.5	1	12.9	28	14.0	2.31	+0.52	0.80	9	21	..	..	
Lake Ontario Counties																			
Agincourt.....	43 47	79 16	590	38.4	+ 2.7	16	59.3	5	16.8	28	13.6	2.71	+0.14	0.99	9	21	..	..	
Aurora.....	43 57	79 24	886	35.2	—	4	57.0	11	12.0	27	13.1	3.25	+0.68	1.45	9	21	..	..	
Hamilton.....	43 16	79 54	303	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Oshawa.....	43 53	78 52	331	39.0	+ 2.8	11	60.0	1	18.0	28	14.5	3.22	+0.19	1.24	6	24	..	3	
Toronto.....	43 40	79 24	350	40.5	+ 3.1	71	59.2	5	22.8	28	12.8	2.46	+0.07	0.66	11	19	..	..	
Toronto Is. (Lakeside Home)	..	..	..	42.0	—	7	58.0	6-12	24.0	28	13.1	..	..	..	..	..	..	..	
Uxbridge.....	44 5	79 8	886	36.1	—	7	56.0	11	21.0	28	11.3	3.72	—	0.67	15	15	..	..	
Westford.....	43 44	79 17	555	36.8	—	1	57.0	5	16.0	28	12.3	2.41	—	0.95	7	23	..	..	
East-Central Counties																			
Bancroft.....	45 1	77 50	..	32.3	+ 1.8	23	57.0	11	- 2.0	30	12.9	2.23	-1.09	2.23	1	29	..	..	
Haliburton.....	45 1	78 28	1050	33.8	+ 2.5	24	59.0	11	2.0	28	14.2	2.93	+0.10	1.02	6	24	..	..	
Kenmore.....	44 45	78 38	920	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Lakefield.....	44 25	78 13	850	37.7	—	4.3	29	60.0	7	17.0	29	14.4	3.79	+0.95	1.32	9	21	..	..
Lindsay.....	44 20	78 45	872	36.0	+ 3.5	33	57.5	11	13.9	29	14.4	3.53	+0.29	1.03	15	15	..	4	
Madoc.....	44 30	77 29	575	36.0	—	9	61.0	6	10.0	28	12.1	3.57	—	1.20	9	21	..	..	
Norwood.....	..	..	..	37.0	—	1	75.0	12	10.7	28	14.1	3.57	—	0.90	10	20	..	..	
Peterboro.....	44 17	78 19	722	36.9	+ 6.2	42	58.0	12	9.0	28	16.8	3.72	+1.14	1.13	9	21	..	1	
Ursa.....	44 54	78 18	..	32.5	—	5	56.0	2	20.0	1-2	9.2	2.29	—	0.57	10	20	..	..	
QUEBEC—																			
Middle St. Lawrence																			
Brome.....	45 10	72 36	678	34.4	+ 3.1	32	59.0	6	7.0	29	11.3	3.80	+0.46	2.25	8	22	..	..	
Cap Rouge.....	46 46	71 18	..	30.9	—	2	59.0	11	10.2	29	11.6	4.97	—	1.17	17	13	..	..	
D'Iberville.....	45 55	71 21	896	32.3	—	2	53.0	7	1.0	29	15.7	4.26	—	2.22	9	21	..	..	
Montreal.....	45 30	73 35	187	34.8	+ 1.7	38	59.2	6	16.2	29	9.9	5.48	+2.04	1.99	15	15	..	1	
Quebec.....	46 48	71 13	796	30.4	+ 1.1	38	48.2	6	9.4	29	9.2	4.59	+1.52	1.34	16	14	..	..	
Ste. Anne de Bellevue	45 27	73 59	..	35.5	—	1	72.0	6	12.5	29	11.1	5.02	—	1.57	11	19	..	..	
Shawinigan Falls	46 34	72 43	..	28.3	+ 0.5	11	45.0	12-24	2	29	13.2	1.93	+0.08	1.01	13	17	..	2	
Sherbrooke.....	45 32	72 5	620	34.2	+ 2.6	10	60.6	6	13.4	29	11.4	2.77	+0.12	0.79	19	11	..	8	
Lower St. Lawrence & Gulf																			
*Anticosti E. Pt.....	49 6	61 42	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
*Anticosti S.W. Pt.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
*Anticosti W. Pt.....	49 52	64 32	39	29.6	+ 0.8	30	43.0	6	12.0	14	..	2.78	—	0.75	8	22	..	..	
*Bicquet.....	48 25	68 53	..	30.2	+ 0.1	31	50.0	6	17.0	11	..	3.30	+0.76	0.80	9	21	..	..	
*Cape Chatou.....	49 6	66 45	..	30.8	+ 1.0	31	57.0	6	20.0	30	..	0.75	—	0.40	4	26	..	..	
*Cape Magdalen.....	49 16	65 20	93	30.5	+ 0.6	31	54.0	6	19.0	20	..	2.23	+0.67	0.75	17	13	..	..	
*Father Point.....	48 31	68 19	29	30.3	+ 0.8	35	56.0	6	13.0	16	8.7	4.20	+1.36	0.90	15	15	..	..	
Lake St. John																			
Chicoutimi.....	48 25	71 5	150	..	..	33	42.6	5	9.9	16	..	4.30	+2.59	0.73	16	14	3	..	
Chicoutimi (2).....	..	..	..	28.2	—	2	44.0	5-21	8.0	17-29	10.4	3.64	—	0.70	9	21	..	..	
Lake Edward.....	47 39	72 15	1333	25.9	—	3	46.0	1	- 4.5	28	10.6	3.64	—	0.70	9	21	..	..	
La Tuque.....	47 27	72 48	520	27.8	—	1	47.0	2-5	1.0	29	14.8	4.35	—	2.15	8	22	..	..	
Mistassini.....	48 54	72 15	360	27.0	—	1	48.0	5	- 5.0	29	13.7	2.90	—	0.60	14	16	..	..	
Rolival.....	48 31	72 13	352	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
The Northwestern Districts																			
Abitibi.....	48 33	79 22	..	25.4	+ 1.2	17	44.0	4	5.0	30	9.4	0.90	+1.00	0.20	7	23	..	..	
Manouan Crossing.....	47 54	73 50	..	24.3	—	1	42.0	6-22	-13.0	29	12.4	3.89	—	0.60	16	14	..	..	
Weymouthshingue (Dum A).....	..	..	..	25.6	—	1	45.0	5	- 5.0	29	12.4	4.21	+0.48	1.30	8	22	1	..	
White Shore Lake.....	48 12	75 43	..	24.9	—	1	48.5	12	-13.5	26	14.9	2.31	—	1.00	8	22	..	..	
The North Shore																			
Clarke City.....	50 10	68 25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
New Brunswick—																			
Chatham.....	47 3	65 29	21	32.1	+ 0.6	38	57.5	6	13.5	17	11.2	4.64	+0.82	1.58	12	18	..	..	
Dalhousie.....	48 4	66 22	39	32.0	+ 3.5	36	43.0	7	18.0	17	8.8	2.20	—	0.70	6	24	..	..	
Fredericton.....	15 57	66 36	164	33.5	+ 1.1	37	64.2	7	11.5	17	14.7	4.69	+0.57	2.34	10	20	..	1	
Moncton.....	16 9	64 45	30	33.9	+ 0.6	15	67.0	7	15.0	28	15.9	2.75	+0.31	0.70	10	20	..	..	
*Point Lepreau.....	45 4	28 30	..	39.8	+ 2.3	34	56.0	7-8	24.0	29	..	4.86	+1.21	1.87	3	25	..	..	
St. John.....	45 17	66 4	70	37.5	+ 0.8	38	57.5	8	21.7	29	10.8	3.93	+0.78	1.43	15	15	..	4	
St. Stephen.....	45 11	67 16	35	35.7	+ 2.3	15	67.0	1	15.0	17	17.3	3.85	+0.49	1.10	7	23	..	..	
Sussex.....	45 38	65 38	96	36.1	+ 2.7	15	64.0	8	13.0	17-30	15.4	4.21	+0.48	1.30	8	22	..	..	
Williamsburg.....	..	..	..	30.3	—	1	56.0	9	9.5	17	12.8	6.84	—	2.97	13	17	..	..	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, '12.

\*Stations not furnished with Registering Thermometers

STATION	TEMPERATURE																		PRECIPITATION																
	Latitude	Longitude	Elevation above sea level, in feet	Mean	Difference from average	Yr's Observations	Highest	Lowest	Date	Mean daily range	Amount	Difference from average	Heaviest fall in month	Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs																	
NOVA SCOTIA—																																			
Advocate .....				18.6	—	1	65.0	—	19.0	30 13.4	4.62	—	1.10	7	23																				
Antigonish .....	45 38 61	59	29	47.3	—	42	59.0	—	15.0	30 14.1	—	—	—	—	—																				
Halifax .....	44 30 63	36	88	40.1	—	37	63.7	—	18.6	30 15.2	5.89	+0.01	1.51	12	18			1																	
Kentville .....	45		40	35.4	—	1	65.0	—	16.0	30 13.3	4.25	—	1.37	12	18																				
Merigomish .....				39.0	—	1	69.0	—	16.0	30 14.9	—	—	—	—	—																				
New Germany .....				36.1	—	1	64.0	—	15.0	30 15.8	—	—	—	—	—																				
Parrsboro' .....	45 23 64	19	49								5.45	—	1.56	5	25																				
Port Hastings .....	45 39 61	22	45	33.2	—	17	21	48.0	—	18.0	11.0	1.65	-2.55	0.55	5	23																			
*Sable Island (E. Pt.) .....	43 58	59 46	25	44.3	—	0.6	22	57.0	—	31.0	30 8.2	7.01	+2.23	1.81	18	12		2																	
Sable Island (Main Station) .....				39.6	—	0.7	39	64.0	—	24.0	30 11.0	4.44	+1.00	0.86	13	17		1																	
Sydney .....	46 10 60	10	35	39.6	—	0.7	39	64.0	—	24.0	30 11.0	4.44	+1.00	0.86	13	17		2																	
Turo .....	45 22 63	18	77	37.4	—	1.2	39	66.8	—	11.3	29 14.5	5.63	+1.38	1.14	14	16		1																	
*Whiteshead .....	45 15 61	8	20	41.6	—	1.5	35	55.0	—	28.0	30 —	3.66	-0.73	1.00	7	23																			
Windsor .....	44 59 64	6	90	39.4	—	1.9	10	67.0	—	8	30 14.7	2.91	-0.81	1.72	13	17																			
Wolfville .....	45 7 64	20		38.9	—	1.4	13	67.8	—	22.3	29 13.3	3.79	-0.25	0.92	12	18																			
Yarmouth .....	43 50 66	2	65	41.8	—	1.6	32	61.1	—	8	25.8	29 11.6	3.99	-0.99	0.80	12	18		1																
P. E. ISLAND—																																			
Charlottetown .....	46 14 63	10	38	37.1	—	1.1	37	60.0	—	8	22.0	29-30 10.0	4.01	-0.39	1.06	16	14		2																
Charlottetown (Exp. Farm) .....	46 14 63	7	75	37.0	—	3	65.0	—	7	25.0	12 11.2	4.21	—	1.06	16	14																			
Hamilton .....	46 25 63	48		37.2	—	1.1	15	65.0	—	9	29.0	17 10.5	3.12	-0.92	1.00	6	24																		
NEWFOUNDLAND—																																			
*Amour Point .....	51 28 56	51																																	
Burns .....	47 0 55	10	27	39.6	—	4	54.0	—	30	25.0	30 12.5	11.69	—	2.25	21	9		4																	
*Cape Norman .....	51 38 55	52		26.3	—	28	39.0	—	1-8	8.0	30 —	1.69	—	0.70	8	22		1																	
Fogo .....	49 43 54	17	30																																
*Point Riche .....	50 42 57	25	35	31.2	—	1.1	28	45.0	—	6	18.0	14 —	0.35	-4.16	0.15	4	26																		
*Port aux Basques .....	47 35 39	10	27	36.8	—	3	50.0	—	8	23.5	30 9.0	5.01	—	1.43	18	12																			
St. George's .....				36.6	—	25	56.9	—	10	25.6	29 12.6	2.77	—	0.80	22	8																			
St. John's .....	17 34 52	42	125	40.5	—	2.8	38	65.0	—	9	22.0	30 12.5	7.68	+1.64	2.03	20	10																		
LABRADOR—																																			
North West River .....																																			
BERMUDA—																																			
Prospect .....	32 17 64	46	151	67.6	—	0.6	21	78.2	—	2.3	53.4	19 10.0	3.24	-1.08	1.00	10	20																		



## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING NOVEMBER, '12.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No of Days of or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake	0 50	1	28	0 50	30	1 0	1	1 0	29	
Annis (Canoe Point)	2 08	14	14	0 34	19	2 5	2	1 8	29	
Armstrong	1 75	10	18	0 36	3	16 0	2	15 0	30	
Akamina										
Beaver Lake	5 36	14	16	0 94	20					
Barriere Valley (Louis Cr.)										
Coquitlam	11 48	13	17	1 36	11					
Cariboo Road No 141										
Denman's Island	10 72	21	9	1 87	12					
Ferguson	2 26	4	11	1 06	18	58 0	15	8 0	21	
Goldstream Lake	11 35	23	7	1 85	22	1 0	1	1 0	29	
Hydraulic										
Hornby Island	11 63	24	6	2 57	12	0 3	1	0 3	10	
Invermere	0 10	2	23	0 09	14	6 1	5	2 1	8	
Jordan River										
Jordan River (Bear Creek)	9 77	23	6	1 15	6	5 0	1	5 0	29	
Little Qualicum	7 14	15	15	0 00	12					
Lumby	1 54	7	21	0 88	9	5 0	2	3 0	3	
Monte Creek	0 81	5	23	0 28	9	3 0	2	2 0	29	
Nana Harbour	11 93	10	17	2 71	22	6 5	3	2 5	16	
Rock Creek	0 77	5	23	0 29	8	3 5	2	2 5	2	
Shawnigan Lake	8 30	22	8	1 63	21					
Wychffe	0 66	5	22	0 14	10	16 0	4	5 0	1-2-4	
ALBERTA—										
Bardo						4 0	2	3 0	8	
Bismark						3 2	2	2 0	3	
Braederheim										
Bittern Lake						5 0	3	3 5	9	
Brooks	0 16	3	25	0 07	14	0 5	2	0 5	9	
Beaver Mines						5 1	2	4 1	14	
Coleman	0 30	1	24	0 30	19	11 5	5	6 0	8	
Campsie										
Cowley	0 23	2	25	0 14	9	14 5	3	6 5	10	
Caldwell										
Clareholm	0 21	2	25	0 17	14	8 8	3	7 0	10	
Dorelee						4 5	4	2 0	10	
Dunstable	0 01	1	25	0 01	13	2 0	4	0 8	30	
Grassy Lake	—					—				
Jumping Pound						14 7	5	6 0	8	
Loch Sloy										
Lyndon						10 2	3	5 0	10	
Limbham						12 3	1	12 3	10	
La Pearl										
Lethbridge	0 23	1	28	0 23	14	5 0	1	5 0	9	
Macleod						15 0	3	7 0	7	
Mayeroff	0 51	3	23	0 27	9	15 7	4	6 0	10	
Mountain View						12 0	3	8 0	9	
Nateby										
Nanton						3 0	1	3 0	9	
Okotoks						2 0	1	2 0	10	
Pekisko	0 65	1	25	0 65	9	17 5	4	7 0	14	
Ponoka										
Sion										
Seven Persons						2 0	1	2 0	4	
Tilley										
Writing-on-Stone (Coutts)	0 02	1	26	0 02	6	3 4	3	2 3	4	
Waterton Mills	0 85	4	23	0 57	9	13 8	3	8 0	10	
SASKATCHEWAN—										
Aberfeldy										
Gull Lake						3 5	2	3 0	11	
Gull Lake (Fks. Swift Cur.)	0 05	1	26	0 05	6	3 5	3	1 5	1-15	
Last Mountain										
Maple Creek						3 0	4	1 5	6	
Meadow Lake										
Nashlyn (Kelvinhurst)										
Willow Creek (Battle Cr.)						2 5	1	2 5	4	
MANITOBA—										
Cartwright						2 5	3	1 0	4	
Deloraine						3 3	2	2 0	4	
Norquay (Swan Lake)						1 0	2	0 5	5-23	
Rapid City						2 2	3	1 7	4	
Rose Bank										
ONTARIO—										
Brantford	2 18	11	16	0 96	6	1 0	3	0 5	2	
Deer Park	2 35	7	22	0 94	6	1 3	1	1 3	24	
Dutton	2 29	4	25	1 25	8	1 0	1	1 0	25	
Embsdale	2 17	5	19	0 87	7	9 5	6	4 5	26	
Fort Frances										
Georgetown	2 78	8	21	0 83	13	0 5	1	0 5	24	
Grantham	2 13	8	20	1 01	8	0 5	2	0 3	27	
Grand Valley										
MacCue	3 53	3	26	2 04	7	21 0	1	21 0	24-25	
Princeton										
Sydenham	2 65	2	27	1 35	7	12 0	1	12 0	24	
Strathroy	3 94	5	22	1 51	6	4 0	3	2 0	18	
Watford	2 98	4	25	1 76	6					
Westport	3 15	4	25	1 12	7-13	18 0	1	18 0	24	
Westminster	4 01	4	25	2 41	6	8 0	1	8 0	2	
Wooler	2 80	6	23	1 13	11	5 0	1	5 0	24	
Wesley	3 71	11	14	0 93	1	14 5	5	5 0	28	
Wattenwyl	1 10	2	21	0 97	8	22 0	7	9 0	1	
Watson	4 83	6	20	2 07	14	20 0	4	9 0	27	
QUEBEC—										
Kipawa Dam	1 00	1	17	1 00	22	51 8	12	9 0	1	
Lucerne	4 20	9	21	3 20	6-7					
Perkins Mills	3 24	6	20	2 09	7	3 0	4	1 8	7	
Quinze Dam						19 0	5	6 0	14	
Timiskaming	0 19	1	26	0 19	6	11 0	3	5 0	14	
NEW BRUNSWICK—										
Point Essequime	3 28	5	22	1 94	8	6 5	3	4 1	14	
NOVA SCOTIA—										
Big Mushanush Lake (Ma-										
hone)										
Kentville										
Milton										
Mushanush River (Mahone)										
Nappan	3 17	9	20	0 87	8	0 5	1	0 5	29	
South Alton	3 85	8	19	1 09	9	18 0	3	12 0	29	
White Rock	3 43	5	24	1 73	15	10 0	1	10 0	28	

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF NOVEMBER, 1912.

a Barometer not reduced to sea level

[illegible]

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF NOVEMBER, 1912

## DIRECTION OF WIND FROM

STATION	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations
<b>ALBERTA—</b>										
Athabasca Landing.....	1	1	1	1	3	6	16	1	0	30
Didsbury.....	0	0	0	1	3	11	12	3	0	30
Edmonton.....	1	1	1	7	12	18	10	10	0	60
Hallmark (Emsburg).....	1	3	1	15	6	10	0	16	8	60
Hillsdown.....	0	2	1	11	2	12	9	6	0	43
Loveland.....	2	0	1	0	1	4	43	0	9	60
Macleod.....	5	4	2	0	7	16	11	8	7	60
Paken (Victoria).....	0	2	2	19	9	8	24	16	10	90
Ranfurly (Wheatfield).....	0	2	2	19	9	8	24	16	10	90
<b>SASKATCHEWAN—</b>										
Chaplin.....	0	3	2	1	0	10	5	9	0	30
Crescent Lake.....	0	2	1	3	7	3	10	3	1	30
Estevan.....	6	3	0	3	11	2	2	3	0	30
Fort Qu'Appelle.....	1	0	9	8	9	4	15	7	7	60
Grenfell (Brownhill).....	0	1	0	10	4	17	6	12	0	50
Indian Head.....	0	1	3	4	10	22	17	24	9	90
Larchmount (Glenbryan).....	0	5	0	1	1	21	17	15	0	60
Moosomin.....	0	0	1	6	2	12	6	2	1	30
Muenster (St. Peter's Monastery).....	0	7	0	0	0	9	0	44	0	60
Onion Lake.....	0	2	1	3	0	9	0	10	5	30
Pense (Gatesgarth).....	1	2	0	5	1	4	16	1	0	30
Waseca.....	1	2	0	5	1	4	16	1	0	30
<b>MANITOBA—</b>										
Berens River.....	12	2	9	4	12	0	16	5	0	60
Brandon.....	4	12	2	8	1	26	13	13	11	90
Hillview.....	3	2	11	9	8	28	6	23	0	90
Moose Horn Bay (Aitkensville).....	7	5	4	9	10	4	1	15	5	60
Morden.....	3	6	2	5	4	14	14	5	7	60
Oak Bank.....	4	0	1	1	6	5	7	6	0	30
Stony Mountain.....	8	2	3	5	10	12	6	14	0	60
<b>ONTARIO—</b>										
Agincourt.....	5	3	4	2	3	22	23	25	3	90
Alton.....	7	0	8	1	33	4	34	3	0	90
Beatrice.....	11	1	2	8	19	5	1	19	24	90
Birnam.....	2	0	0	4	23	8	5	15	3	60
Clinton.....	8	1	0	7	16	10	9	9	0	60
Cottam.....	12	0	2	0	10	13	15	2	0	54
Gravenhurst.....	26	3	10	14	18	4	5	4	6	90
Lindsay.....	14	2	0	14	13	13	2	11	21	90
North Bruce.....	15	0	9	0	35	12	9	10	0	90
Orillia.....	0	1	0	1	6	6	6	5	5	30
Owen Sound.....	2	0	8	7	13	8	10	12	0	60
Point Clark.....	1	1	0	0	5	9	10	4	0	30
Port Dover.....	0	3	6	1	1	22	43	14	0	90
Stoney Creek.....	10	0	2	0	9	1	7	1	0	30
Uplands.....	3	1	4	0	1	10	1	7	3	30
Wexford.....	3	1	4	0	1	10	1	7	3	30
<b>QUEBEC—</b>										
Abitibi.....	23	6	7	2	25	4	17	6	0	90
Anticosti, W. Pt.....	5	20	17	1	4	8	17	18	0	90
Anticosti, Heath Point.....	6	27	1	1	13	12	18	11	1	90
Bicquet.....	3	4	7	4	20	9	38	4	1	90
Brome.....	0	12	20	0	1	5	42	0	10	90
Cape Chatte.....	3	6	9	8	7	4	11	32	13	90
Cape Magdalen.....	7	8	0	0	0	0	0	15	0	30
Cape Rouge.....	0	19	0	13	0	0	0	8	46	86
Chicoutimi.....	0	19	0	13	0	0	0	8	46	86
Clarke City.....	0	19	0	13	0	0	0	8	46	86
Manouan Crossing.....	0	19	0	13	0	0	0	8	46	86
<b>NEW BRUNSWICK—</b>										
Dalhousie.....	1	4	2	2	0	2	15	3	1	30
Moncton.....	0	4	3	1	2	1	2	16	1	30
Pt. Lepreau.....	14	5	6	1	0	14	17	21	0	78
Sussex.....	1	6	1	0	0	3	1	2	16	30
<b>NOVA SCOTIA—</b>										
Kentville.....	3	1	4	1	4	4	8	5	0	30
Parrsboro.....	0	4	0	10	0	9	0	7	0	30
Port Hastings.....	0	4	0	10	0	9	0	7	0	30
Sable Island, E. Pt.....	3	9	2	4	12	27	10	19	4	90
Truro.....	15	6	8	2	7	31	15	6	0	90
Whitehead.....	15	6	8	2	7	31	15	6	0	90

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
NOVEMBER 1912.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.....						05	16	24	22	21	15	06	01					
Salmon Arm.....						02	07	15	21	20	25	24	16	07	02			
Nanaimo.....																		
Vancouver.....						01	05	09	11	11	11	09	07					
Agassiz.....							13	14	14	11	13	10	04					
Tranquille.....																		
Summerland.....					T	23	28	29	33	32	31	20	05					
Kamloops.....						06	26	36	31	29	35	26	02					
Edmonton.....						06	27	35	47	43	45	31	05					
Lethbridge.....					03	37	53	57	65	56	59	59	41	T				
Lacombe.....						21	35	45	48	54	49	35	09					
Medicine Hat.....																		
Fort Dunvegan.....																		
Fort Vermilion.....						06	17	19	26	37	36	24	14	02				
Battleford.....					09	47	64	64	63	61	58	58	19					
Indian Head.....						04	25	45	52	49	45	40	18	02				
Moosejaw.....						20	49	57	65	64	64	62	19					
Scott.....					08	24	34	43	47	46	37	34	10					
Rosthern.....						02	16	24	33	41	42	36	20	01				
Brandon.....						17	26	41	55	55	54	30	06					
Winnipeg.....						04	25	39	38	38	28	29	17	01				
Haileybury.....					02	12	27	30	34	32	33	29	20	02				
Woodstock.....						14	37	43	53	69	48	34	17	01				
Lindsay.....						02	31	45	45	40	40	34	17	02				
Barrie.....						19	34	34	37	34	35	22	05					
Toronto.....					01	21	45	43	45	45	41	31	22	01				
Kingston.....						12	33	33	35	39	45	40	17					
Ottawa.....					02	20	27	35	43	42	58	39	31	03				
Montreal.....					T	14	27	38	45	44	42	35	23	03				
Cap Rouge.....						01	10	15	16	16	14	12	03					
Quebec.....						10	16	22	20	23	19	18	10					
Sherbrooke.....					01	12	27	30	32	23	17	24	09					
Fredericton.....					02	23	37	43	51	48	16	42	31	04				
Charlottetown.....					02	20	27	30	22	28	32	33	18	03				
Napan.....						04	14	27	33	39	38	41	45	18	02			

	Victoria	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosthern.	Brandon.	Winnipeg.	Haileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sherbrooke.	Fredericton.	Charlottetown.	
Registered duration in hours.....	33	42		19	23		60	58	72	129	89			54	133	84	121	85	64	85	66	66	89	77	66	90	76	84	81	26	42	53	98	69	
Percentage of possible duration %..	12	16		7	9		22	22	28	48	34			23	52	31	45	32	25	34	25	24	31	27	23	31	26	30	31	5	15	19	34	25	
Difference from average %.....	-9	-		-10	-		-	-	-	-	-			-26	+5	-	-	-	-1	-	-9	-	+5	+2	+3	+2	-2	+2	+1	-	-	-	+1	-	
Maximum percentage in one day %..	44	67		43	60		80	74	81	89	83			85	95	74	80	91	79	84	79	78	82	67	72	86	82	82	87	72	82	70	87	80	
Date of maximum.....	19	15		14	15		14	14	15	1	26			24	25	18	28	15	28	18	25	28	28	20	20	30	20	3	3	16	16	11	4		
Number of days completely clouded.....	12	11		14	23		11	10	7	1	2			16	5	6	6	9	14	7	14	8	8	9	10	9	10	10	10	11	17	14	11	10	1

*Thunder recorded:—*

- 1.
- 2.
- 3.
- 4.
- 5.
6. Sooke.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
13. Wooler, Cottam, Birnam, Clinton.
14. Brantford.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
27. Parry Sound.
- 28.
- 29.
- 30.

*Auroras recorded:—*

1. Aweme IV.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
9. Aweme IV., Chicoutimi.
10. Treherne III.
- 11.
- 12.
13. Cartwright.
- 14.
15. Aweme III., White Shore Lake III.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
25. Chicoutimi.
- 26.
27. Chicoutimi.
- 28.
- 29.
- 30.

## FORECASTS FOR NOVEMBER 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1303. These were divided as follows:—

District.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage
Alberta .....	78	63	13	2	89.1
Saskatchewan .....	77	68	8	1	93.5
Manitoba .....	78	67	11	0	92.9
Lake Superior .....	121	90	28	6	83.9
Lower Lake Region .....	123	99	16	8	87.0
Georgian Bay .....	123	91	21	11	82.5
Ottawa Valley .....	104	81	17	6	86.1
Upper St. Lawrence .....	104	82	17	5	87.0
Lower St. Lawrence .....	114	86	18	10	83.3
Gulf .....	122	89	23	10	82.4
Maritime Provinces West .....	123	96	19	8	85.8
Maritime Provinces East .....	123	102	20	11	91.1
Total .....	1303	1014	211	78	85.9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

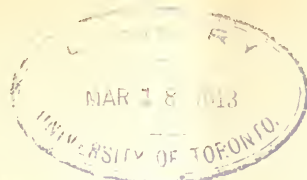
In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
Dec. 26th, 1912.



80.  
Apr. 14/13



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVI.

DECEMBER, 1912

No 12.

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

At some points in the Kootenays on the 15th and 21st the temperature fell below zero, and on the Upper Fraser River on the 15th also. These were exceptional days and the mean temperature of the month did not differ greatly from average. Mean temperatures were about  $38^{\circ}$  on South Vancouver Island or about  $1^{\circ}$  lower than average; on North Vancouver Island,  $39^{\circ}$ ; on the Lower Fraser,  $38^{\circ}$ , or  $1^{\circ}$  higher than average; on the Upper Fraser,  $22^{\circ}$ , or  $1.5^{\circ}$  lower; in the Okanagan Valley,  $29^{\circ}$ , or  $1^{\circ}$  higher than average; in the West Kootenay,  $28^{\circ}$ ; in the East Kootenay,  $24^{\circ}$ ; on the Thompson River,  $29^{\circ}$ ; on the North Columbia,  $23^{\circ}$ ; on the North Coast,  $37^{\circ}$ ; on the Queen Charlotte Islands,  $40^{\circ}$ .

### ALBERTA.

On the morning of the 1st temperatures from  $10^{\circ}$  to  $30^{\circ}$  below zero were registered, the lowest occurring in the Athabasca and Peace Rivers districts. During the last three weeks of the month the weather was remarkably mild in the southern and eastern districts, the temperature remaining above zero during the whole period. The mean temperature along the Bow and Belly Rivers was  $27^{\circ}$  or nearly  $7^{\circ}$  higher than normal. Along the North Saskatchewan the mean was  $21^{\circ}$  or about  $4^{\circ}$  above normal; along the Red Deer River,  $25^{\circ}$ ; and the Athabasca River,  $18^{\circ}$ .

### SASKATCHEWAN.

Temperatures below zero were recorded on about twelve days, the lowest  $-15^{\circ}$  to  $-25^{\circ}$ , occurring on the 8th or 11th. During the first and last weeks, however, maximum temperatures ranging between  $45^{\circ}$  and  $50^{\circ}$  occurred. The mean temperatures were about  $5^{\circ}$  above normal, averaging about  $12^{\circ}$  along the North Saskatchewan and Qu'Appelle Rivers, and  $20^{\circ}$  on the South Saskatchewan.

### MANITOBA.

From the 13th to the 19th and from the 27th to 31st the weather was remarkably mild, but during the remainder of the month temperatures below zero were frequently recorded. The mean temperature of that portion of Manitoba lying along the Qu'Appelle, Assiniboine and Red Rivers, was  $12^{\circ}$ , which is about  $5^{\circ}$  higher than normal.

## ONTARIO.

Temperatures in the districts of Algoma, Nipissing, Thunder Bay and Rainy River, were similar to those of Manitoba, while in Muskoka and Parry Sound zero or lower was registered on 5 to 7 days, and along the Upper Ottawa River on 8 or more. In Eastern Ontario  $5^{\circ}$  to  $10^{\circ}$  below zero was recorded at some points on the 9th and 20th. In the southwestern portion of the province temperatures did not generally go below  $10^{\circ}$  above zero. The mean temperature of southwestern districts was about  $30^{\circ}$ , which is about  $4^{\circ}$  higher than normal. In eastern districts the mean was about  $26^{\circ}$ , which is  $6^{\circ}$  higher than normal.

## QUEBEC.

Along the River St. Lawrence, as far east as Quebec city, temperatures below zero were recorded on from 5 to 10 days, but in northern districts on about 18 days. Mean temperatures on the Middle St. Lawrence were about  $21^{\circ}$  or about  $4^{\circ}$  higher than normal; on the Lower St. Lawrence about  $18^{\circ}$  or  $1^{\circ}$  higher than normal; in the northern districts about  $12^{\circ}$ , or  $3^{\circ}$  higher than normal.

## THE MARITIME PROVINCES.

The mean temperature of New Brunswick was  $23^{\circ}$  or  $4^{\circ}$  higher than normal; of Nova Scotia  $30^{\circ}$  or  $2^{\circ}$  higher than normal; of Prince Edward Island  $27^{\circ}$ .

## PRECIPITATION.

## BRITISH COLUMBIA.

On South Vancouver Island the precipitation amounted to 10 inches, or 2 inches more than normal, and on North Vancouver Island to 18 inches. Along the Lower Fraser River, the North Columbia River, and on the Queen Charlotte Islands, the amount was about 7.50 inches, or about the normal. In the Okanagan Valley and the Kootenays the amount ranged from .50 of an inch to over 2 inches.

## THE WESTERN PROVINCES.

Along the Bow and Belly and Athabasca Rivers the total precipitation was about .40 of an inch, but along the North Saskatchewan and Red Deer Rivers ranged from merely a trace to .20 of an inch. The country about the Qu'Appelle River, however, reported about 1 inch, as did also the greater portion of Manitoba.

## ONTARIO.

The heaviest precipitation occurred in the Georgian Bay counties, totalling about 4 inches, or 1 inch in excess of normal. Throughout the remainder of the Province, the amounts were generally in excess of 2.50 inches, but slightly less than normal.

## QUEBEC.

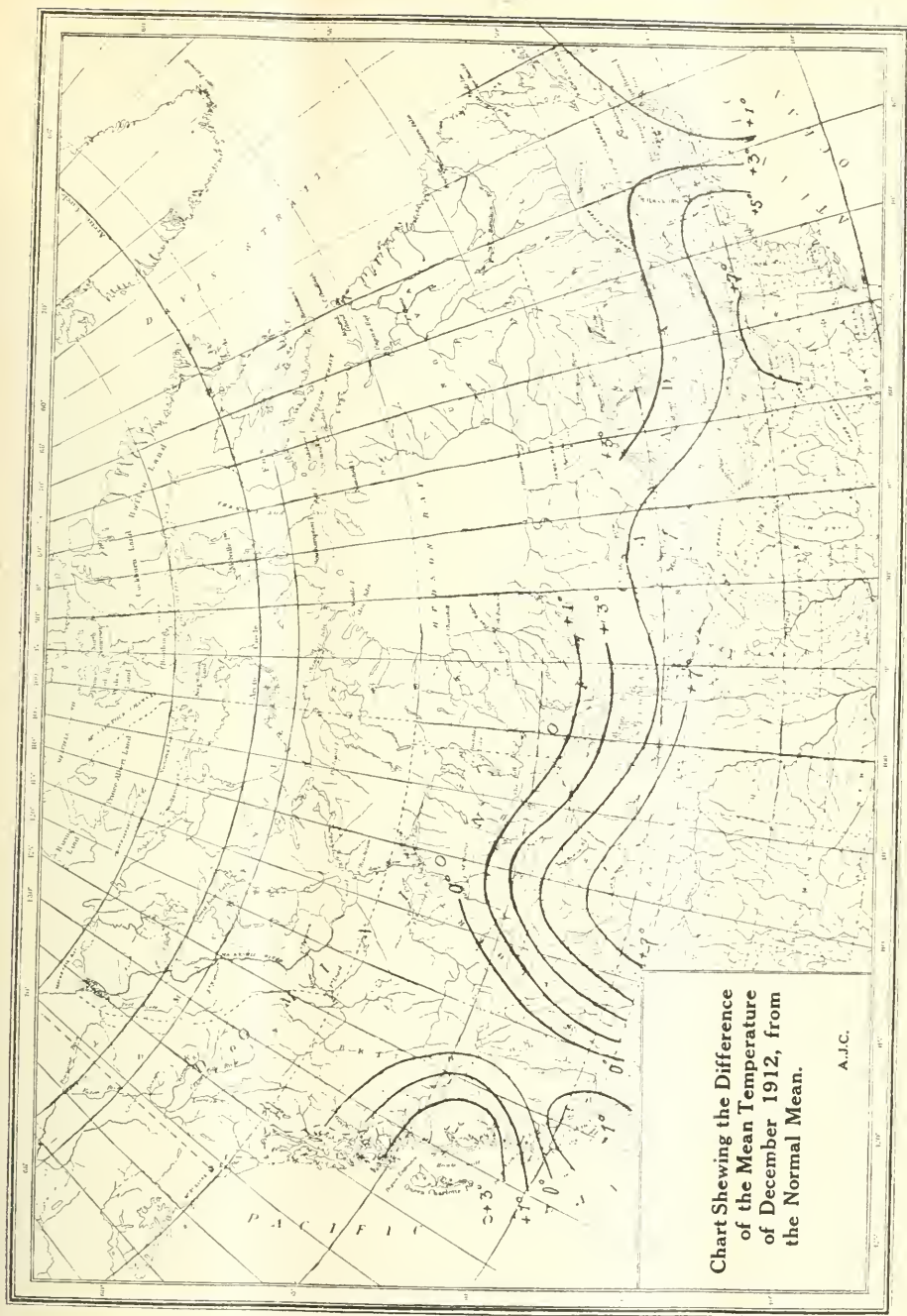
Along the Middle St. Lawrence and in the Lake St. John District the amount was about 3 inches, or slightly more than normal. In other districts the total was about 2 inches, or slightly less than normal.

## THE MARITIME PROVINCES.

The total precipitation over the Province of New Brunswick was equivalent to a depth of nearly 5 inches or less than normal by about 1.25 inches; while in Nova Scotia the depth was nearly 6 inches or about 1.50 inches less than normal.

## ATMOSPHERIC PRESSURE.

It is apparent, from the results obtained at the Telegraph Reporting Stations, that the mean atmospheric pressure for December was subnormal in all parts of Canada except in Vancouver Island, where the mean value was somewhat in excess of the normal. Over Northern Districts, the deficiency was about 0.15 of an inch, with a somewhat greater departure in a few localities.



## HIGH AREAS.

Nine areas of high pressure were charted. Two first appeared in the far northwestern portion of the continent; two near Hudson's Bay and five on the United States Pacific Coast. The four areas from the northern portion of the continent were of little intensity, while those from the Pacific were usually more marked. The general course of the areas was to the Gulf States, thence off the Atlantic coast. Very little cold attended the northern areas, while those from the Pacific preserved their usual mild characteristics, the general result being a month of abnormally mild weather in all portions of the Dominion.

## LOW AREAS.

Seventeen areas of low pressure were charted. Twelve first appeared in the far northwestern portion of the continent, one in the North Pacific States, one in the Western States, one in the vicinity of New Mexico, one in the Gulf of Mexico and one off the South Atlantic States. The two last mentioned areas passed up the Atlantic coast towards the Maritime Provinces and Newfoundland. All the others travelled either over or to the northward of the Great Lakes, ten out of the thirteen passing down the St. Lawrence Valley, the remaining three apparently breaking up in transit. Many of the areas were of much importance, several as they reached the Maritime Provinces recording exceptionally low barometric readings. As a consequence stormy conditions frequently obtained in all districts, the total wind mileage for the month in the Maritime Provinces being especially marked.

## WINDS, DECEMBER, 1912

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION.
			Miles	Direction	Date	Gales	Strong Wind.	Fresh Winds	
BRITISH COLUMBIA.									
Victoria .....	7445	544	47			3	10	6	SW
Point Garry .....	8632	716				10	6	8	E
Kamloops .....	3255	247	18	NE	22			5	
ALBERTA.									
Edmonton .....	3778	252	24	NW	27		2	12	SW, NW
Calgary .....	3736	296	24	NW	9		7	8	NW
SASKATCHEWAN.									
Prince Albert .....	3490	323	20	NW	9		1	5	
Qu'Appelle .....	3944	358	35	NW	7	2	11	12	SW
MANITOBA.									
Le Pas .....	5414	447	30	SW	28	1	6	5	W
Winnipeg .....	7997	456	37	NW	9	2	13	11	NW
ONTARIO.									
Port Arthur .....	7540	401	38	NW	10	3	9	12	W, NW
Cochrane .....	4836	339	23	NW	2		4	5	
Parry Sound .....	7199	378	26	SW	6		6	13	SE., SW
Southampton .....	9796	469	30	NW	6	1	21	6	SW
Pelee Island .....	11804	816	40	W-N	2-3-12	10	12	8	
Woodstock .....	9625	565	36	SW	10	5	13	12	SW
Toronto .....	13034	793	46	SW	10	12	14	3	W
Kingston .....	7882	465	32	W	6	3	9	14	SW
Stonecliffe .....	3055	270	21	W	3		1	6	W
QUEBEC									
Sherbrooke .....	7132	475	47	W	19				
Quebec .....	9318	574	40	SW	6	9	12	7	SW
Father Point .....	12094	705	47	W	6	11	11	7	W
NEW BRUNSWICK									
Fredericton .....	7318	700	37	SW-NW	20-27	4	12	8	NW
St. John .....	12158	795	50	NW	30	13	12	6	NW
Pt. Lepreaux .....	16684	1162	59	W	19	19	9	3	NW
NOVA SCOTIA									
Yarmouth .....	12035	769	43	NW	28	4	13	8	N
Wolfville .....	11038	716	43	SW	30	10	12	6	SW
Halifax .....	10986	756	49	SW	30	11	12	5	NW
Sable Island .....	19348	1088	72	NE	25	22	8	1	SW, NW
Flat Point .....	15100	1029	61	NW	17	20	10	1	W
PRINCE EDWARD ISLAND									
Charlottetown .....	7242	497	38	SW	20	4	8	10	NW



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, '12.

\*Stations not furnished with Registering Thermometers.

STATION.	TEMPERATURE.										PRECIPITATION.				
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.
BRITISH COLUMBIA—															
S. Vancouver Island															
Alberni (Beaver Creek)	49 15	124 49	900	34.7	-2.7	17	47.0	13	27.0	10	6.9	12.67	+3.43	2.20	23
Clayoquot	49 11	125 55	27	31.4	-0.7	13	51.0	11	26.0	31	9.6	21.36	+5.28	3.41	24
Cleese	48 25	123 42	170	37.1	—	1	48.0	1-17	25.0	31	12.0	8.04	—	1.30	19
Cowichan (Tzouhalem)	48 25	123 42	170	39.5	—	6	49.2	13	29.3	21	7.0	7.29	-1.04	1.32	21
Nanaimo	49 10	123 37	125	39.8	-1.0	12	50.5	14	28.2	19	8.8	5.89	—	0.97	20
Nanose Bay	49 17	124 12	30	38.6	—	1	49.0	13	27.0	19	8.8	4.55	—	0.78	16
Salt Spring Island	48 50	123 20	25	38.7	—	4	47.0	2-13	30.0	19	6.7	7.23	—	1.61	19
Sooke	48 41	123 44	25	39.2	—	2	50.0	11	30.0	5-21	9.0	11.24	—	1.45	20
Victoria	48 24	123 19	85	41.4	-1.4	20	49.6	13	31.4	19	6.7	5.84	-0.43	1.06	19
N. Vancouver Island															
Holberg	50 29	128 18	—	39.4	—	4	48.3	18	33.0	24-31	6.3	19.05	—	2.50	27
Swanson Bay	50 37	126 53	—	37.0	—	9	47.0	25	30.0	27	5.5	29.60	—	4.35	27
Triangle Island	50 52	129 5	680	40.4	—	5	46.0	6-12	24.0	31	6.6	9.16	—	0.84	27
Winter Harbour (Quatsano)	50 32	127 40	—	40.1	—	17	49.0	17-29	31.0	24	10.5	14.02	+6.98	1.16	28
Lower Fraser River															
Agassiz	49 14	121 31	52	39.4	+1.8	22	49.0	3-12	25.0	10	12.9	10.09	+2.71	1.48	25
Chilliwack	49 10	121 57	21	38.4	+0.9	10	48.0	—	26.0	9-21	7.8	7.05	—	1.29	25
Hope	49 23	121 25	500	34.0	—	3	45.0	—	25.0	9-21	9.3	3.87	—	0.68	21
Ladner	49 05	123 4	—	41.7	+3.3	11	50.0	2-5	29.0	18-19	8.2	4.80	-0.23	1.70	19
New Westminster	49 13	122 54	330	37.4	-1.4	25	49.4	13	27.7	8	5.7	8.50	-0.14	1.12	23
North Nicome	49 12	122 2	39	39.4	+1.0	19	50.0	8	27.0	9-10	9.3	8.50	-1.01	1.43	25
Pemberton Hatchery	50 20	122 33	30	30.8	—	5	42.0	18	19.0	9	6.4	4.08	—	0.53	13
Ruskin (Stave Falls)	49 16	122 23	125	37.5	—	4	46.0	4-15	28.0	31	8.7	10.05	—	1.29	17
Steveston (Garry Point)	49 21	123 17	—	39.2	+0.2	17	53.0	4	27.0	8-19	9.1	5.43	-0.05	1.05	20
Vancouver	49 17	123 5	136	39.4	+0.5	12	49.5	13	30.3	8-19	6.2	8.80	—	1.31	26
Upper Fraser River															
Babine Lake	55 38	126 26	—	20.8	—	4	43.0	27	2.0	23	14.4	—	—	—	—
Barkerville	53 02	121 35	4150	21.0	-1.6	24	36.0	7	2.0	11	11.7	6.01	+2.80	1.20	14
Chilcoot (Big Creek)	51 40	123 0	3100	20.3	—	9	42.0	7	-6.0	24	20.3	0.40	-0.15	3	28
Fort George	—	—	—	22.3	—	1	44.0	20-27	-3.0	1	17.7	1.10	—	0.20	9
Fort St. James (Stuarts Lake)	51 28	124 12	2250	22.0	+5.5	19	47.0	8	-0.5	24	17.0	1.29	-0.33	0.33	8
Hydraulic	—	—	—	26.7	—	1	45.0	26	8.0	17	17.3	0.80	-0.30	5	26
Queenslie	52 59	122 30	1700	22.9	-1.1	17	46.0	27	6.0	24	15.3	0.50	-0.47	0.30	3
Okanagan Valley															
Badley	49 35	120 10	1771	28.3	—	9	42.0	3	9.5	31	11.3	0.77	—	0.24	9
Badley (Nickel Plate)	49 35	120 10	1771	23.0	—	9	40.0	26	10.0	1-31	15.0	3.30	—	1.20	11
Keremeos	49 15	119 29	1200	30.3	—	4	45.0	3	15.0	28-29	10.1	0.62	—	0.30	6
Kelowna (Okanagan Mission)	49 15	119 29	1200	30.9	+0.5	13	42.0	3-31	13.0	21	9.4	0.96	-0.74	0.12	8
Penikese	49 29	119 35	34.6	—	—	6	48.0	30	16.5	21	8.7	0.49	—	0.15	13
Princeton	49 29	120 29	1650	23.1	+0.9	18	39.0	3	2.0	19	15.3	1.55	+0.17	0.32	14
Summerland	49 36	119 40	1100	28.8	—	6	44.0	3	15.0	25	10.7	0.55	—	0.15	5
Vernon (Coldstream Ranch)	50 14	119 15	1246	28.8	+0.6	17	40.0	5-31	10.0	21	10.0	1.20	-0.05	0.30	8
West Kootenay															
Crawford Bay	49 45	116 45	2000	30.2	—	3	40.0	18	14.0	31	7.8	3.77	—	0.53	14
Creston	49 45	116 45	2000	28.8	—	1	41.0	18	10.0	24	11.8	2.02	—	0.50	10
Grand Forks	49 2	118 27	—	25.4	—	2	42.0	4	2.0	21	11.7	1.42	—	0.23	17
Greenwood	49 5	118 49	—	22.4	—	1	38.0	18	-1.0	20-21	15.7	0.82	—	0.20	12
Hwyer	49 52	117 0	1752	29.6	—	1	38.0	1-24	15.0	25	6.6	1.80	—	0.42	10
Kaslo	49 52	117 0	1752	29.1	—	5	40.0	18	13.0	11	9.3	1.78	—	0.40	8
Nakusp	49 52	117 0	1752	29.7	—	7	45.0	3	13.0	25	7.2	3.12	—	0.50	15
Needles	49 40	118 9	—	—	—	—	—	—	—	—	—	—	—	—	19
Nelson	49 29	117 21	1760	30.2	—	9	40.0	18	17.0	21	7.4	3.15	—	0.90	12
Rossland	49 5	117 48	3400	26.4	—	9	36.0	3	15.0	21	6.0	2.68	—	0.50	14
East Kootenay															
Akamina	49 10	114 29	4150	—	—	—	—	—	—	—	—	—	—	—	—
Cranbrook	49 30	115 50	—	23.7	—	4	40.0	4	-8.0	21	14.6	0.14	-0.14	0.07	4
Tobacco Plains (Elko)	49 1	115 5	2684	30.0	+2.4	17	52.1	14	9.0	21	10.7	0.94	-1.45	0.34	4
Wilmer	50 34	116 14	—	19.4	—	4	37.0	19	4.0	21	11.1	0.50	—	0.20	4
Thompson River															
Ashcroft	50 32	119 7	1180	29.8	—	1	44.5	4	13.0	24	12.6	0.37	—	0.21	5
Enderby	50 41	120 29	1245	29.8	-0.7	22	46.0	18	12.0	31	10.9	0.54	-0.28	0.10	9
Kamloops	50 9	120 39	2120	28.3	+1.1	17	46.0	2	6.0	31	13.3	0.33	-0.57	0.25	6
Nicola Lake	50 9	120 39	2120	27.5	—	1	37.0	18	9.0	21	9.7	5.14	—	0.90	18
Pemberton Meadows	50 42	119 35	1152	29.6	—	11	42.0	18	13.0	24	8.9	2.11	-0.01	0.38	11
Salmon Arm	50 42	119 35	1152	29.6	—	11	42.0	18	13.0	24	8.9	2.11	-0.01	0.38	11
Salmon Arm (Exp. Farm)	50 42	119 35	1152	29.6	—	11	42.0	18	13.0	24	8.9	2.11	-0.01	0.38	11
Tranquille	50 41	120 29	—	—	—	—	—	—	—	—	—	—	—	—	—
North Columbia River															
Glacier	51 14	117 29	4072	17.4	-1.1	10	25.0	12	0.0	11	7.5	14.65	—	1.40	24
Golden	51 0	118 6	1476	20.5	-1.8	11	34.0	26	-1.0	25	12.9	1.78	+0.02	0.32	8
Revelstoke	51 16	116 55	2550	29.3	-2.1	13	43.0	31	12.0	25	11.9	8.15	+3.81	0.80	21

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER. 12

\* Stations not furnished with Registering Thermometers

STATION	Elevation above sea level, in feet			TEMPERATURE							PRECIPITATION					No. of days		No. of thunderstorms	
	Latitude N.	Longitude W.		Mean	Difference from average	Yr's Observations	Highest	Lowest	Date	Mean daily range	Amount.	Difference from average.	Haviest fall in month	1 Day with 0.1 or more	No. of far days	No. of auroras.	No. of thunderstorms		
BRITISH COLUMBIA—CON.																			
North Coast																			
Bella Coola	52 40	126 54	150	34.2	+3.2	14	46.6	20-27	25.0	17.7	7.8	6.90	-1.36	1.20	17	14	1		
Khatda River	54 18	130 18	170	38.9	—	3	52.6	7-8	27.0	16-17	8.3	16.21	—	1.88	29	2	1		
Prince Rupert	54 18	130 18	215	30.4	—	3	38.0	4-5	10.0	15	5.2	14.44	—	1.25	21	10	1		
Stewart	56 1	130 1	—	32.5	—	1	46.0	6-7	20.0	17	6.9	6.98	—	1.60	17	14	—		
Terrence	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Queen Charlotte Islands																			
Ikeda Bay	52 17	131 7	5	39.8	—	5	56.0	6	28.0	31	7.1	9.85	—	1.70	20	11	—		
Masset	53 58	132 9	30	39.4	-0.1	15	50.0	6-26	26.0	31	10.0	5.22	-1.14	1.10	24	7	—		
Yukon Boundary																			
Atlin	59 35	133 38	2240	21.4	—	7	45.0	7	-7.0	25	11.8	1.39	—	0.18	11	20	—		
YUKON—																			
Carcross	60 11	134 34	2171	14.8	—	6	45.0	7-8	-23.0	25	16.6	0.94	—	0.35	7	24	—		
Dawson	64 4	139 29	1200	-11.6	-1.8	11	16.0	7-8	-41.0	31	18.8	2.68	+0.94	0.40	12	19	—		
MACKENZIE—																			
Ft. Resolution	61 0	113 0	800	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
ALBERTA—																			
N. Saskatchewan River																			
Campsie	54 8	114 42	—	19.8	—	1	54.5	8	-27.0	1	23.0	0.14	—	0.12	3	28	1		
Dayland	55 52	112 17	—	18.8	—	5	50.0	8	-16.0	1	17.6	0.11	—	0.03	4	27	—		
Edmonton	53 33	113 30	2138	21.8	-2.9	30	44.7	26	-18.0	1	18.7	0.16	-0.70	0.04	3	28	—		
Erindale	52 0	112 0	2795	21.1	—	2	48.0	8	-3.0	1	19.6	—	—	—	—	—	—		
Gilt Edge	52 59	110 43	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—		
Halkirk (Emsburg)	52 17	112 10	—	23.0	—	6	47.0	8	-10.0	1	17.0	T	—	T	—	—	—		
Lavaland	52 30	111 50	—	23.0	—	3	48.0	6	-16.0	1	18.5	T	—	T	—	—	—		
Pakas (Victoria)	54 0	112 31	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—		
Ranfurly (Waitefield)	53 29	113 28	2060	17.5	—	8	47.0	8	-24.0	1	22.2	0.23	—	0.05	7	24	5		
Sion	53 54	114 15	—	20.1	—	1	53.0	8	-25.0	1	23.1	0.25	—	0.10	8	23	3		
Wetaskiwin	52 58	113 23	2480	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
The Red Deer River																			
Alis	52 24	113 10	—	22.0	—	8	55.0	9	-15.0	1	21.7	—	—	—	—	—	—		
Delia	51 38	112 25	—	23.6	—	2	46.7	6	-10.0	1	21.3	0.20	—	0.10	3	28	—		
Didsbury	51 40	114 8	—	24.8	—	9	56.0	6	0.0	1	19.7	0.20	—	0.20	1	30	—		
Harmatam	51 45	114 23	3500	22.9	—	5	39.0	9	-9.0	25	28.4	0.20	—	0.15	2	29	—		
Hillsboro	52 14	113 29	2406	25.3	—	9	53.0	8	-10.0	1	19.0	0.54	—	0.25	2	29	1		
Lacombe (Ex. Farm)	52 55	113 44	2783	29.9	—	6	58.6	8	-10.6	1	23.7	0.08	—	0.05	3	28	—		
Oyen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Red Deer	52 16	113 49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Threehills Creek	51 30	113 11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
The Bow River																			
Brooks	50 34	111 54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Calgary	51 2	114 2	3389	28.4	+7.5	28	51.0	6	0.0	1	19.3	T	-0.54	T	—	31	—		
Cardston	49 12	113 18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Furman (Playle Creek)	50 59	112 54	2652	24.1	—	10	49.0	8	-4.0	1	23.1	—	—	—	—	—	—		
Gleichen	50 35	113 53	3394	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
High River	50 16	113 26	—	20.3	—	3	41.0	2	2.0	1	15.0	0.35	—	0.20	3	28	—		
Lawrance (Parkland)	49 42	112 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Lethbridge	49 43	112 51	2961	37.1	—	5	48.2	14	-0.9	2	23.7	0.23	—	0.16	5	26	—		
Lethbridge (Exp. Farm)	49 44	113 24	3128	29.8	+2.5	23	50.0	9	4.0	1	15.4	0.32	-1.71	0.20	3	28	—		
Macleod	50 1	110 37	2161	29.4	+7.6	27	52.0	27	4.0	5	21.8	0.36	-0.15	0.20	4	27	—		
Medicine Hat	49 0	114 4	3750	36.2	+0.7	18	45.0	7-8	3.0	6	20.4	1.09	—	0.55	2	28	—		
Pincher Creek	—	—	—	—	—	1	53.0	8	-4.0	1	27.4	—	—	—	—	—	—		
Strathmore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Sundial	50 6	112 54	—	28.9	—	2	56.0	8	-0.5	4	23.2	—	—	—	—	—	—		
Rocky Mountains																			
Banff	51 10	115 74	4542	21.0	+1.9	18	37.6	6	-4.0	15	12.9	0.37	-0.89	0.15	8	23	—		
Blairmore	49 40	114 30	4225	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Athabasca River																			
Athabasca Landing	54 43	113 17	1850	17.0	—	12	32.0	8	-3.0	1	25.3	0.51	—	0.24	4	7	—		
Lunnord	54 33	114 19	—	18.1	—	3	54.0	8	-28.8	1	25.5	0.30	—	0.20	3	28	—		
Pembina	54 12	114 0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Peace River																			
Beaver Lodge	55 20	119 21	—	23.4	—	—	50.5	27	-18.0	1	11.5	0.36	—	0.10	3	28	—		
Dunvegan	55 56	118 53	1306	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fort Vermilion	58 27	116 3	—	-3.2	—	7	47.0	9	-45.0	1	26.8	1.60	—	0.50	4	27	—		
Fort Resolution (2)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Peace River Crossing	56 16	117 15	—	9.1	—	5	49.0	26	-37.0	1	21.1	0.95	—	0.50	3	28	—		
Spirit River	55 40	118 47	2400	—	—	—	—	—	—	—	—	—	—	—	—	—	—		



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, '12.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.				Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.								
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.													
SASKATCHEWAN—																											
Qu'Appelle River																											
Brownhill (Grenfell P.O.)	50 23	102 53	1957	10.1	+ 2.7	22	37.0	27	-21.0	11	19.7	0.90	+0.17	0.60	4	27	2	1									
Brownlee	50 45	106 0		6.8	—	1	41.1	28	-23.9	10	22.8	0.53	—	0.20	6	25											
Buchanan	50 59	102 25	1658	7.5	+2.0	9	35.8	28	-26.0	8	24.8	1.79	0.60	10	21				3								
Crescent Lake	50 59	102 25	1658	17.8	+7.3	10	41.0	9	-14.0	7	20.6	0.60	—	0.30	3	28											
Estevan	49 12	103 4	1858	12.6	—	1	51.5	9	-18.5	7	24.3	0.73	—	0.25	8	23											
Fort Qu'Appelle	51 5	103 24		9.0	—	5	34.0	1	-28.0	8	20.0	1.30	—	0.50	4	27											
Humboldt (Drumague)	51 5	103 24		17.8	—	12	40.0	6-8	-16.0	10	21.5	0.90	—	0.45	3	28											
Humboldt	52 12	105 9		13.6	—	12	40.0	6-8	-16.0	10	21.5	0.90	—	0.45	3	28											
Imperial	51 22	105 23		13.2	+ 5.9	21	39.0	9	-19.0	8	23.1	1.22	+0.51	0.60	6	25											
Indian Head	50 28	103 40	1924	6.7	—	3	38.0	22	-28.0	7	20.6	0.40	—	0.20	2	29											
Kamsack	49 43	102 2	2064	13.2	+ 5.9	21	39.0	9	-19.0	8	23.1	1.22	+0.51	0.60	6	25											
Manor	49 43	102 2	2064	13.2	+ 5.9	21	39.0	9	-19.0	8	23.1	1.22	+0.51	0.60	6	25											
Moose Jaw	50 21	105 35	1759	19.3	+ 8.2	18	44.0	23-27	-19.0	5	25.8	0.56	-0.18	0.18	6	25											
Moosemound	50 0	101 37	1884	11.4	+ 5.1	11	37.0	9	-27.0	8	20.4	—	—	—	—	—											
Muenster (St Peter's Mon.)	52 0	105 0	1870	9.2	—	6	35.0	27	-25.0	11	20.1	0.20	—	0.10	2	29											
Pilger	52 25	105 9	1870	8.1	—	2	38.0	27	-19.0	11	24.3	0.46	—	0.46	1	30											
Pense (Gatesgarth)	50 20	105 0	1879	11.2	+ 3.3	25	41.0	9	-18.0	4-10	22.5	0.80	—	0.60	2	29											
Qu'Appelle	50 30	103 47	2115	14.4	+ 4.6	28	39.0	9	-17.0	8-11	19.7	0.97	+0.33	0.40	6	25											
Quill Lake	52 4	104 14	1600	12.6	+ 5.7	27	40.0	9	-21.0	11	25.6	0.55	-0.06	0.25	6	25											
Regina	50 27	104 37	1885	12.6	+ 5.7	27	40.0	9	-21.0	11	25.6	0.55	-0.06	0.25	6	25											
Strasbourg	51 5	104 57		12.6	+ 5.7	27	40.0	9	-21.0	11	25.6	0.55	-0.06	0.25	6	25											
Yarbo (Fairfield)	50 39	102 4		15.8	—	2	41.0	9	-16.0	4	25.5	1.30	—	0.40	4	27											
Yellow Grass	49 49	104 9		8.1	—	3	36.0	27	-29.0	6	27.2	—	—	—	—	—											
Yorkton	51 11	102 29		8.1	—	3	36.0	27	-29.0	6	27.2	—	—	—	—	—											
S. Saskatchewan River																											
Chaplin	50 26	106 39	2202	15.8	+ 5.6	28	43.0	13	-18.0	4	28.7	0.04	-0.47	0.02	4	27											
East End (Divide)	49 31	108 49		22.0	—	3	45.4	8	-6.8	1	18.0	0.25	—	0.10	3	28											
Larchmont (Glenbryan)	49 21	109 29		19.7	—	2	49.2	9	-14.0	11-12	26.0	0.10	—	0.05	2	29											
Nashlyn (Kelvinhurst)	51 46	108 10		20.6	—	1	61.0	12	-12.0	3	28.6	0.45	—	0.20	3	28											
Oliver	49 49	107 27		16.0	—	3	46.0	9	-16.8	11	26.3	0.05	—	0.03	2	29											
Rathmullen	51 20	108 57		22.4	+ 4.6	26	46.0	8	-10.0	11	18.1	0.38	-0.34	0.10	9	22											
Swift Current	50 20	107 45	2439																								
N. Saskatchewan River																											
Battleford	52 41	108 20	1620	17.5	—	2	42.4	27	-16.0	11	22.0	0.04	—	0.03	2	29			2								
Lloydminster	53 18	110 0		4.6	—	5	35.0	7-9	-25.0	5-11	28.8	—	—	—	—	—											
Luseland	53 52	109 34		7.7	—	6	40.0	24	-27.0	21	20.2	0.58	—	0.38	2	29			1								
Onion Lake	52 52	109 59		16.5	—	2	44.1	1	-19.8	5	23.4	0.27	—	0.10	5	26											
Prince (Meota)	51 0	108 20	1700	13.1	+ 5.4	6	42.0	7	-20.0	11	20.5	0.68	—	0.25	6	23	2										
St. Walburg	51 59	100 30																									
Scott (Ex. Farm)	51 59	100 30																									
Waseca	53 6	109 29																									
The Saskatchewan Forks																											
Chagness (Star City)	52 32	104 13		8.5	+ 2.5	9	38.0	27	-22.0	11	20.0	0.50	—	0.20	3	28	1										
Duck Lake	52 54	106 20		9.5	+ 4.0	28	43.0	27	-19.0	11	18.4	1.07	+0.31	0.30	7	24											
Nelfort	52 47	104 30	1432	8.1	—	3	38.8	27	-23.2	11	23.1	0.50	—	0.30	2	29											
Prince Albert	52 40	106 20	1657	12.9	+ 5.3	12	42.5	27	-16.2	5	22.1	0.60	—	0.30	3	28											
Rosethorn	52 15	106 30	1571																								
Saskatoon	52 15	106 30	1571																								
Lower Saskatchewan River																											
Cumberland House	53 56	102 16		5.5	—	2	36.0	22	-22.0	2	17.8	—	—	—	—	—											
Lost River	53 17	104 21																									
MANITOBA—																											
Qu'Appelle and Assiniboine Rivers																											
Awerne (St. Albans)	49 42	99 35	1180	12.5	+ 6.2	28	41.0	27	-25.9	8	20.6	1.09	+0.14	0.23	11	20	2										
Boissevain	50 25	101 1	1703	9.7	+ 4.3	26	39.9	27	-27.4	8	17.9	1.00	+0.41	0.40	4	27											
Braddon	49 51	99 57	1176																								
Carberry	49 34	99 30	1258																								
Carman	49 31	98 0	872																								
Cypress River	49 33	99 3	1232																								
Hillview	49 55	100 33	1400	5.9	+ 2.7	27	37.0	27	-28.0	8	15.9	1.10	+0.52	0.30	5	26											
Minnedosa	50 15	99 50	1699	10.1	+ 1.0	32	35.5	27	-23.1	28	17.3	0.84	+0.22	0.29	6	25			2								
Ninette	49 24	99 38	1363	15.6	—	2	49.0	9	-24.0	8	22.4	—	—	—	—	—											
Ninra	49 14	99 51	1649	12.9	—	2	38.0	28	-22.0	8	20.4	—	—	—	—	—											
Portown	49 11	101 3	1531																								
Pipestone	49 34	100 58	1400																								
Portage la Prairie	49 57	98 17		11.9	+ 4.7	23	39.0	19	-20.0	8	17.8	1.05	+0.77	0.50	4	27											
Portage la Prairie (2)	49 56	98 17		6.2	+ 5.6	19	36.0	24	-26.0	8	18.1	—	—	—	—	—											
Russell	50 59	101 20		13.9	—	1	32.2	26	-25.0	8-9	21.8	0.71	—	0.26	3	28											
Souris	49 36	98 40	1212	13.9	+ 5.4	17	38.0	9	-21.0	8	17.9	1.04	—	0.38	10	21			2								
Treherne	49 51	100 55	1444																								
Virton	49 51	100 55	1444																								
The Red River																											
Almasippi	49 14	99 20		13.9	—	10	41.0	27	-24.0	8	16.8	1.15	—	0.49	6	25											
Jordan	49 11	98 6	978	14.8	—	9	40.0	28	-17.0	8	16.1	0.75	—	0.40	3	28			4								
Oak Bank	49 57	96 42	800	11.5	+ 5.6	17	37.7	27	-19.5	8	13.2	1.20	+0.68	0.40	5	26											
Stony Mountain	50 40	97 14	803	11.0	+ 7.8	30	38.0	28	-27.0	8	21.9	0.63	—	0.40	3	28											
Winnipeg	49 53	97 7	760	12.5	+ 5.1	38	39.1	27	-15.5	8	14.8	0.78	+0.06	0.31	14	17											

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, 1912

\* Stations not furnished with Registering Thermometers

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.							
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of four days.	No. of autumns.
MANITOBA—Continued																	
Dauphin Lake and River	51 8	100 2	957	14.3	—	7	41.0	28	-19.0	5-6	21.6	80	—	0.25	4	27	
Moose Horn Bay (Ackensville)	51 15	68 33	710	10.6	—	3	44.0	28	-16.7	6	17.3	1.27	—	0.35	15	16	2
Berens River	52 18	57 23	710	2.8	—	3	36.0	28	-26.0	8	14.7	0.50	—	0.30	7	24	
Lake Winnipegosis	52 6	101 15	1112	4.3	—	3	38.0	27	-26.0	2	16.7	0.60	—	0.20	4	27	
Le Pas	53 49	101 15	890														
Swan River	53 49	101 15	890														
ONTARIO—																	
The Lake Superior Districts																	
Rainy River	49 48	94 32	1102	10.9	—	11	30.0	1	-21.0	6	16.9	0.10	—	0.15	1	30	
Kenora	49 48	94 32	1102	10.9	—	11	30.0	1	-21.0	6	16.9	0.10	—	0.15	1	30	
Thunder Bay	48 26	89 26	912	11.8	—	5	39.0	1	-15.0	8	22.6	1.92	—	0.30	10	21	
Kakabeka Falls	48 27	89 26	914	15.4	+1.0	31	49.0	1	-14.0	8	18.3	0.78	+0.00	1.19	15	16	
Port Arthur	48 27	89 26	914	15.4	+1.0	31	49.0	1	-14.0	8	18.3	0.78	+0.00	1.19	15	16	
Schreiber	48 50	87 15	933	14.5	—	9	50.3	5	-24.2	12	25.5	5.78	—	1.21	9	22	
Algoma	46 18	83 55	595	24.5	+7.3	14	46.0	6	-10.0	12	14.7	1.85	-0.72	0.29	9	22	
Bruce Mines	46 30	80 59	—	20.8	—	7	49.0	6	-13.0	12	21.9	2.16	—	0.76	11	20	
Copper Cliff	46 30	80 59	—	20.8	—	7	49.0	6	-13.0	12	21.9	2.16	—	0.76	11	20	
Fort Frances	46 27	93 30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Porcupine	45 40	82 14	—	9.8	—	2	46.0	2	-25.0	10	21.6	3.00	—	0.60	15	16	
Providence Bay	48 35	85 16	1252	26.1	—	2	53.0	16	3.0	13	17.4	1.31	—	0.47	4	27	
White River	—	—	—	12.7	+4.6	43	39.0	1	-24.1	12	24.7	2.82	-1.03	0.40	15	16	
Nipissing	49 2	81 0	946	17.7	+5.6	17	49.7	3	-18.6	12	18.6	1.75	-0.30	0.29	18	13	
Cochrane	47 29	79 30	687	19.3	—	2	50.0	3	-22.0	12	24.2	1.05	—	0.30	7	24	
Haileybury	47 8	79 29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Montreal River	47 8	79 29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Upper Ottawa River	46 15	74 48	—	20.2	+6.6	18	53.0	3	-9.3	13	17.0	2.80	+0.40	0.30	9	22	
Rutherglen (Lake Talon)	46 9	78 6	557	18.2	+4.3	36	46.0	2	-10.0	13	15.4	1.07	-1.22	0.30	14	17	
Stoney Hill (Rockcliffe)	46 9	78 6	557	18.2	+4.3	36	46.0	2	-10.0	13	15.4	1.07	-1.22	0.30	14	17	
Upper St. Lawrence and Lower Ottawa Rivers																	
Almonte	45 12	76 13	390	21.1	—	1	52.2	6	-4.8	9	11.4	1.78	—	0.51	7	24	
Bloomfield	45 59	77 21	260	31.2	+6.2	13	54.0	7	-6.0	9	14.4	1.27	—	0.49	5	26	
Hillier	44 13	76 26	285	30.6	+6.4	38	54.2	6	-4.9	21	17.3	2.43	-0.41	0.84	15	16	
Kingston	44 56	75 57	—	21.9	—	3	55.0	6	-4.0	21	17.3	1.14	—	0.42	7	24	
Montague	45 8	75 43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
North Gower	45 8	75 43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ottawa	45 26	75 42	294	22.8	+5.9	28	50.0	6	-1.0	21	14.3	2.31	+0.40	0.62	14	17	
Renfrew	45 26	76 39	416	22.1	+5.7	21	45.0	2	-7.7	21	11.9	1.29	+0.45	0.60	8	23	
Georgian Bay Counties																	
Barrie	44 23	79 41	839	23.4	+4.3	37	49.0	6	-11.0	9	17.1	3.87	+1.36	1.63	15	16	
Bentrie	44 38	79 40	800	27.3	+6.5	25	56.0	6	-3.0	8-21	17.6	1.48	—	1.00	7	24	
Coldwater	44 38	79 40	800	27.3	+6.5	25	56.0	6	-3.0	8-21	17.6	1.48	—	1.00	7	24	
Collingwood	44 31	80 2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Gravenhurst	44 54	79 20	—	25.1	+4.2	42	51.0	6	-9.0	9	17.9	4.41	+3.70	0.80	17	14	
Huntsville	45 19	79 8	—	26.0	—	5	59.0	6	-11.0	9	9.6	—	—	—	—	—	
Midland	44 44	79 53	750	26.9	—	1	55.0	9	-15.0	8-12	17.4	3.28	—	0.55	5	26	
Markdale	44 37	79 24	775	27.8	+4.6	20	51.0	2-6	-2.0	9	15.2	4.31	+0.99	1.03	12	19	
Orillia	44 37	79 24	775	27.8	+4.6	20	51.0	2-6	-2.0	9	15.2	4.31	+0.99	1.03	12	19	
Owen Sound	44 34	80 5	597	25.5	+4.4	36	52.0	3	-5.0	21	17.6	7.80	+3.14	2.00	21	10	
Perry Sound	45 19	80 0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ronville	45 15	78 57	1038	24.8	—	5	48.0	3	-6.0	9-21	15.9	3.28	—	1.72	6	25	
Shelburne	44 5	80 47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uplands	45 48	79 25	—	21.0	+4.2	27	44.0	6	-18.0	9	22.6	3.56	-0.11	0.60	14	17	
Lake Huron Counties																	
Brimar	43 2	81 55	600	30.5	+5.7	29	55.5	5	-7.0	23	19.1	2.15	-1.25	0.65	11	20	
Clinton	43 32	82 37	—	30.1	+5.5	10	59.0	3	-10.0	9	11.7	2.55	—	0.50	12	19	
Godrich	43 45	80 11	—	28.2	+2.2	22	55.0	6	-12.0	13	10.4	1.83	—	0.58	12	19	
Lucknow	43 56	81 20	908	28.2	+2.2	22	55.0	6	-12.0	13	10.4	1.83	—	0.58	12	19	
*North Bruce	44 23	81 25	—	30.8	+5.2	24	53.0	5	-15.0	8	—	3.15	-0.07	0.74	19	12	
Point Clark	44 3	81 44	595	—	—	—	—	—	—	—	—	1.68	—	0.98	2	29	
*Sarnia	42 50	82 24	656	30.3	+2.9	36	55.8	5	-9.7	9	11.1	3.24	-0.51	1.06	21	10	
Southampton	44 30	81 21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lakes St. Clair & Erie, Niagara Peninsula																	
Chatham	42 23	82 12	595	31.3	+3.9	26	56.0	5	-10.0	26	12.7	1.40	-0.42	0.35	6	25	
Cottam	42 7	82 45	306	30.1	-0.1	25	54.0	2	-5.0	12	20.8	4.73	+2.10	2.00	8	23	
Grimby	43 13	77 36	—	34.1	—	3	58.0	5	-13.0	8-12	14.4	2.70	—	0.65	12	19	
Pelee Island	41 56	82 32	585	—	—	—	—	—	—	—	—	—	—	—	—	—	
Port Burwell	42 39	80 55	592	32.3	—	9	54.0	5	-7.0	9	9.4	2.28	—	0.33	9	22	
Port Dover	42 27	80 18	635	31.1	+3.2	37	52.0	6	-9.1	12	17.0	3.10	+0.13	0.90	12	19	
Port Stanley	42 40	81 12	592	31.6	+3.3	38	52.0	5	-6.5	9	13.8	3.37	+0.29	0.63	17	14	
St. Catharines	43 9	79 17	347	—	—	—	—	—	—	—	—	—	—	—	—	—	
Stoney Creek	43 13	79 45	222	33.3	+3.3	28	57.0	6	-11.0	9-13	12.6	1.74	-1.35	0.57	7	24	
Wallaceburg	42 35	82 24	—	33.8	—	7	56.0	5	-10.0	12	12.1	0.47	—	0.27	6	25	
Welland	42 59	79 17	577	34.6	+7.3	26	58.0	9-10	-9.0	4	11.3	3.23	-0.53	0.80	13	18	
Winham Centre	42 20	83 4	658	31.7	+4.6	39	55.0	6	-12.0	12-13	11.8	1.63	-0.68	0.55	10	21	
Windsor	42 20	83 4	658	31.7	+4.6	39	55.0	6	-12.0	12-13	11.8	1.63	-0.68	0.55	10	21	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, '12.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION			Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.	
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.						Heaviest fall in month.
ONTARIO—Continued—																			
West-Central Counties																			
Alton.....	43 51	80 5	1259	31.5	—	38	31	36.0	—	10 0	22	15.2	0.64	—1.80	0.34	2	29	—	—
Brantford.....	43 10	80 21	750	27.9	+3.5	15	33.0	—	5	5.0	9	12.2	2.07	—0.84	0.40	12	19	—	—
Elora.....	43 41	80 24	1274	29.6	+5.8	26	34.0	—	5	8.0	9	11.3	1.79	—0.55	0.50	9	22	—	1
Guelph.....	43 33	80 16	1050	29.5	—	12	32.0	—	5	5.0	8	14.0	2.56	—	—	9	24	—	—
Listowel.....	42 59	84 13	808	30.0	+3.1	28	36.5	—	6	6.0	9	14.1	4.77	+1.26	1.10	16	15	—	—
London.....	43 12	80 25	840	29.3	+4.1	23	37.0	—	6	12.0	9-23	13.6	2.26	+0.21	0.50	9	22	—	—
Paris.....	43 23	81 0	1191	30.3	+4.1	23	35.0	—	6	12.0	9-23	13.6	2.26	+0.21	0.50	9	22	—	—
Stratford.....	43 8	80 47	980	29.7	+4.0	38	35.5	—	6	9 0	9	13 2	1.98	—2.99	0.56	13	18	—	—
Woodstock.....	43 8	80 47	980	29.7	+4.0	38	35.5	—	6	9 0	9	13 2	1.98	—2.99	0.56	13	18	—	—
Lake Ontario Counties																			
Agincourt.....	43 47	79 16	590	30.0	+6.7	18	32.0	—	2	9 6	9	12 1	1.81	—0.51	0.57	13	18	—	2
Aurora.....	43 57	79 24	886	33.1	—	5	32.0	—	2	7 0	8	13 7	1.84	—0.26	0.73	9	22	—	—
Hamilton.....	43 16	79 44	303	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Oshawa.....	43 53	78 52	331	32.4	—	11	35.0	—	7	9 0	9	15 2	3.32	—	1.24	6	25	—	—
Toronto.....	43 40	79 24	350	32.6	+4.9	72	36.4	—	11	11 2	9	12 2	1.85	—0.76	0.45	17	14	—	—
Lakefield.....	44 25	78 15	850	28.8	—	4	29	34.0	7	10 0	20	19.6	—	—	—	—	—	—	—
Toronto Is.(Lakeside Home)	43 40	79 24	—	32.9	—	6	35.0	—	6	12 0	8	13 0	—	—	—	—	—	—	—
Uxbridge.....	44 5	79 8	886	27.6	—	8	33.0	—	4	5 0	9	10 4	2.25	—	0.40	14	17	—	—
Wexford.....	43 44	79 17	535	28.8	—	1	33.0	—	6	8 0	9	11 6	1.93	—	0.86	5	26	—	—
East-Central Counties																			
Bancroft.....	45 1	77 50	—	24.7	+6.8	23	31.0	—	6	—7.0	20	16 3	—*	—	—	—	—	—	—
Haliburton.....	45 1	78 28	1050	23.0	+4.2	25	26.0	—	2	—10.5	9	18 0	—	—	—	—	—	—	—
Kilmount.....	44 45	78 38	920	23.8	+3.9	13	31.0	—	6	—10.0	20	19 6	—	—	0.50	14	17	—	—
Lakefield.....	44 25	78 15	850	28.8	+4.4	29	34.0	—	6	2 0	9	12 15.5	2.07	—0.37	0.50	8	23	—	—
Lindsay.....	44 20	78 45	872	27.0	+5.4	33	33.2	—	6	2 1	9	15 1	2.09	—2.38	0.46	12	19	—	1
Madoc.....	44 30	77 29	575	26.5	—	9	36.0	—	6	1 0	9	14 6	2.45	—	0.81	11	20	—	—
Norwood.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Peterboro.....	44 17	78 19	722	28.2	+7.3	44	36.0	—	6	3 0	9	16 7	2.22	—0.42	0.55	10	21	—	—
Ursa.....	44 54	78 18	—	28.0	—	5	48.0	—	2-6	2 0	11-12	8 7	3.20	—	0.57	9	22	—	—
QUEBEC—																			
Middle St. Lawrence																			
Brome.....	45 10	72 36	678	23.7	+5.2	32	35.0	—	6	—5.0	1-9	15 1	2.76	+0.67	0.89	10	21	—	—
Cap Rouge.....	46 46	71 18	—	16.6	—	2	47.0	—	7	—13.2	13-14	17 7	3.06	—	0.72	16	15	—	—
D'Israeli.....	45 55	71 21	896	18.8	—	2	48.0	—	15	—10.5	13-17	21 3	4.23	—	2.00	10	21	—	—
Montreal.....	45 30	73 35	187	23.9	+4.8	43	34.0	—	6	—2.8	9	13 1	3.24	—0.58	0.56	16	15	—	—
Quebec.....	46 48	71 13	296	18.6	+3.1	38	48.8	—	6	—11.6	13	15 3	3.02	—0.14	0.53	17	14	—	3
Ste. Anne de Bellevue	45 27	73 50	—	24.5	—	6	36.0	—	4	2 0	9	13 3	2.25	—	0.70	11	20	—	—
Shawigan Falls.....	46 34	72 43	—	13.5	—	9	35.0	—	6	—20.0	22	18 7	2.70	—	0.40	12	19	—	1
Sherbrooke.....	45 32	72 5	620	24.1	—	9	36.2	—	6	4 5	10	16 8	3.45	—	0.81	22	9	—	6
Lower St. Lawrence & Gulf																			
*Anticosti E. Pt.....	49 5	61 42	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Anticosti, S.W. Pt.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Anticosti, W. Pt.....	49 52	64 32	30	—	—	—	—	—	—	—	—	—	1.80	—	0.30	9	22	—	—
*Bicquet.....	48 25	68 53	—	18.4	—	31	40.0	—	6	—4 0	13-24	—	2.11	—	0.40	10	21	—	—
*Cape Chatte.....	49 6	66 45	—	18.1	—0.6	31	43.0	—	6	—6 0	12	—	—	—	—	—	—	—	—
*Cape Magdalen.....	49 16	65 20	93	19.9	+1.6	29	45.0	—	6	—11.0	14	16 0	1.30	—	0.80	4	27	—	—
Father Point.....	48 31	68 19	20	17.2	+1.5	35	44.2	—	6	—10.0	14	16 0	1.92	—1.14	0.42	14	17	—	—
Lake St. John																			
Chicoutimi.....	48 25	71 5	150	13.6	—	34	—	—	—	—	—	—	3.45	+0.88	1.00	18	13	3	—
Chicoutimi (2).....	—	—	—	—	—	2	48.0	—	6	—23.0	24	13 8	4.15	—	1.60	5	26	—	—
Lake Edward.....	47 39	72 15	1333	12.3	—	3	41.6	—	5	—30.5	21	22 6	3.30	—	0.80	8	23	—	—
La Tuque.....	47 27	72 48	520	13.9	—	2	47.0	—	7	—22.0	23	21 5	1.40	—	0.80	4	27	—	—
Mistassini.....	48 34	72 15	360	9.2	—	1	43.5	—	7	—20.0	22-24	20 3	2.45	—	0.60	13	18	2	—
*Roberval.....	48 31	72 13	352	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
The Northwestern Districts																			
Abitibi.....	48 33	79 22	—	9.7	+2.6	17	39.0	—	2	27.0	16	20 4	1.60	—0.92	0.30	13	18	—	—
Manouan Crossing.....	47 54	73 30	—	12.0	—	2	41.0	—	7	—27.0	13	28 1	3.97	—	0.58	24	7	—	—
Weymontanguingue (Dam A)	—	—	—	13.1	—	1	40.0	—	6	—30.0	21	20 2	2.50	—	0.80	12	19	—	—
White Shore Lake.....	48 12	75 43	—	7.5	—	1	45.0	—	6	—28.0	17	20 3	0.60	—	0.30	3	28	—	—
The North Shore																			
Clarke City.....	50 10	66 25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NEW BRUNSWICK—																			
Chatham.....	47 3	65 29	21	20.1	+1.6	37	45.5	—	19	13.0	14	17 8	3.16	—0.02	0.68	15	16	—	—
Dalhousie.....	48 4	66 22	39	16.7	+2.1	37	38.0	—	11	—11.0	13	14 7	2.35	—0.20	0.80	5	26	—	—
Fredericton.....	45 57	66 36	164	22.3	+6.3	40	48.0	—	2-3	—7.0	13	18 5	4.74	+1.23	1.12	12	19	—	2
Moncton.....	46 9	64 45	50	22.2	+3.6	15	62.0	—	3	—5.0	12-13	19 6	4.32	+1.71	1.05	6	25	—	—
*Point Lepreau.....	45 4	66 28	30	32.0	+6.2	34	50.0	—	19	—7.0	13	—	5.77	+3.12	1.77	8	23	—	2
St. John.....	45 17	66 4	70	28.5	+4.3	40	52.5	—	19	3.7	13	14 8	7.38	+3.35	2.49	14	17	—	4
St. Stephen.....	45 11	67 16	35	24.5	+3.1	15	50.1	—	2	1.0	21	17 6	4.75	+1.36	1.40	14	27	—	—
Sussex.....	45 38	65 28	96	26.2	+7.3	15	54.0	—	10-20	2.0	10-13	21 4	3.44	—0.42	1.55	7	24	—	—
Williamsburg.....	—	—	—	18.2	—	1	41.0	—	3	15.0	13	16 3	6.03	—	1.55	12	19	—	—

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION				Days with 01 or more No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs	
				Mean	Difference from average.	Yrs Observations	Highest	Date	Lowest	Date	Mean daily range.	Amount	Difference from average					Wettest fall in month
NOVA SCOTIA—																		
Advocate.....	45 38	61 59	50	28 2	—	3	60 0	20	4 0	14	20 8	—	—	—	—	—	—	
Antigonish.....	44 39	63 36	88	30 5	+ 1 2	38	55 0	19	3 4	24	16 8	8 42	+ 2 72	1 63	20	11	—	
Kentville.....	45 3	—	40	26 2	—	1	53 0	19	2 0	24	15 2	4 81	—	1 39	11	20	—	
Merigouish.....	—	—	—	28 6	—	1	59 0	3	0 3	10	20 2	4 29	—	0 66	11	20	—	
New Germany.....	—	—	—	30 1	—	1	58 0	4	3 0	24	18 8	6 34	—	1 46	9	22	—	
Parasboro.....	45 23	64 19	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Port Hastings.....	45 39	61 22	45	—	—	20	45 0	5	— 5 0	22	12 6	2 40	+ 0 29	1 05	5	28	—	
*Sable Island, E. Pt.....	43 58	59 46	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sable Island (Main Station)	—	—	—	36 3	+ 0 1	22	55 0	19	20 0	13	12 0	6 63	+ 1 21	1 29	20	11	—	
Sydney.....	46 10	60 10	35	30 8	+ 1 6	39	57 5	19	6 5	13	15 2	6 26	+ 0 57	1 74	16	15	—	
Truro.....	45 22	63 18	77	28 8	+ 3 9	38	58 6	19	— 6 5	24	20 0	6 75	+ 2 08	1 79	17	14	—	
*Whitehead.....	45 15	61 8	20	33 1	+ 2 3	29	50 0	9	10 0	13	—	6 97	+ 2 58	1 95	8	25	—	
Windsor.....	44 59	64 6	90	29 6	+ 3 1	10	52 0	7	7 5	10	14 6	3 78	—	1 40	10	21	—	
Wolfville.....	45 7	64 20	—	31 4	+ 4 6	12	60 2	19	8 1	24	18 7	6 68	+ 2 71	1 40	12	19	—	
Yarmouth.....	43 50	66 2	65	34 0	+ 2 8	32	56 0	19	12 9	26	14 0	6 21	+ 1 46	1 84	17	14	—	
P. E. ISLAND—																		
Charlottetown.....	46 14	63 10	38	27 1	+ 2 0	37	50 0	19	0 0	13	12 9	6 83	+ 3 09	1 58	14	17	—	
Charlottetown (Exp. Farm)	46 14	63 7	75	26 6	—	3	50 0	20	— 2 0	13	15 8	6 45	—	1 46	12	19	—	
Hamilton.....	46 25	63 48	—	28 0	+ 5 0	15	52 0	20	— 5 0	14	12 1	3 60	—	0 81	7	24	—	
NEWFOUNDLAND—																		
*Amour Point.....	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Burin.....	47 0	55 10	27	31 5	—	4	48 0	3-19	9 0	15	17 0	7 94	—	1 08	22	9	—	
*Cape Norman.....	51 38	55 52	—	13 2	—	28	34 0	28-30	-11 0	13	—	4 95	—	1 20	9	22	—	
Fogo.....	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
*Point Rêbe.....	50 42	57 25	25	21 2	—	28	49 0	3	— 2 0	13	—	0 10	—	0 07	3	21	—	
Port aux Basques.....	47 35	59 10	27	27 9	—	4	43 5	6-19	6 5	13	12 7	9 03	—	1 36	28	3	—	
St. George's.....	—	—	—	28 0	—	—	47 2	19	3 4	13	15 1	4 71	—	1 40	26	5	—	
St. John's.....	47 34	52 42	125	29 9	+ 1 0	39	50 0	11	8 0	14	13 6	6 09	+ 1 02	1 46	13	18	—	
LABRADOR—																		
North West River.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
BERMUDA—																		
Prospect.....	32 17	64 46	151	65 5	+ 0 7	21	75 8	5	56 0	14-30	10 8	2 22	— 2 76	0 42	11	20	—	

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING DECEMBER, '12.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No of Days 01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake						1.3	3	0.5	25-30	
Annis (Lance Point)	0.01	1	16	0.01	4	14.8	14	2.6	2	
Armstrong	0.73	3	19	0.39	3	14.5	9	3.0	11	
Akamina										
Beaver Lake	5.27	19	12	0.80	28	0.5	1	0.5	27	
Barriere Valley (Louis Cr.)										
Coquitlam	11.32	8	23	1.77	25					
Cariboo Road No 141.										
Denman's Island.	9.06	23	8	1.54	31	113.0	15	20.0	3	
Ferguson						18.5	5	8.0	28	
Goldstream Lake	10.22	19	7	1.76	31	23.3	12	4.8	3	
Hydraulic										
Honby Island.	7.19	15	16	1.87	26	13.6	6	10.7	14	
Invermere						41.3	12	16.0	28	
Jordan River	13.68	24	5	2.02	30	41.3	12	16.0	28	
Jordan River (Bear Creek).	14.65	20	8	2.40	3					
Little Qualicum.	5.80	11	20	2.10	31					
Lumby						17.5	11	3.0	4-12	
Monte Creek						5.15	5	2.0	20	
Nans Harbour.	6.45	6	12	1.87	19	5.30	13	10.0	1	
Rock Creek						9.8	8	2.0	1-15	
Shawinigan Lake	7.36	23	4	1.32	31	5.0	4	2.0	25	
Wycliffe	1.17	5	22	0.35	22-29	11.8	4	5.0	3	
ALBERTA—										
Bardo						*	2	*	17-23	
Bismark										
Bruderheim						0.5	2	0.3	4	
Bittern Lake						0.8	1	0.8	14	
Brooks						6.1	3	5.1	3	
Beaver Mines.						15.0	6	4.0	29	
Coleman										
Cowley	0.03	1	24	0.03	3	6.1	6	2.0	3	
Caldwell						4.3	2	4.0	4	
Clareholm						2.1	3	1.0	31	
Doreneke (Bashaw)										
Dunstable (Five Lakes)						1.9	6	1.1	3	
Grassy Lake										
Jumping Pound.						2.0	2	1.3	5	
Loch Sloy										
Lyndon						5.1	2	3.5	4	
Lincham						4.0	1	4.0	12	
La Pearl										
Lethbridge						2.4	3	1.5	3	
Macleod.						6.0	1	6.0	3	
Mayeroff						4.6	4	3.1	3	
Mountain View						3.0	2	2.0	19	
Nateby										
Nanton						*	1	*	4	
Okotoks						3.0	2	2.5	4	
Pekisko										
Ponoka										
Son										
Seven Persons						4.5	2	2.5	14	
Tilley						5.5	3	2.5	5	
Writing-on-Stone (Counts)	0.40	2	21	0.22	3	19.0	8	5.0	4	
Waterton Mills										
SASKATCHEWAN—										
Aberfeldy										
Gull Lake						1.3	2	1.0	14	
Gull Lake (Fks Swift Cur)						4.3	4	1.5	14	
Last Mountain										
Maple Creek						2.0	5	1.0	15	
Meadow Lake										
Willow Creek (Battle Cr.)						2.5	2	2.2	14	
MANITOBA—										
Cartwright						10.5	9	3.0	19	
Deloraine						5.8	6	2.0	8	
Norquay (Swan Lake)						8.5	3	3.0	4-7	
Rapid City						8.5	7	3.0	19	
Rose Bank										
ONTARIO—										
Brantford	1.69	9	11	0.58	29	9.0	11	3.3	18	
Charlton	1.09	1	17	1.00	6	20.5	14	2.5	22	
Deer Park	1.14	7	18	0.36	29	5.0	6	1.5	18	
Dutton	1.15	2	27	0.75	2	4.0	2	2.0	23-24	
Ennisdale	1.67	4	13	0.60	3	21.0	14	4.0	23	
Fort Frances						5.4	5	2.0	30	
Georgetown	0.59	5	21	0.37	2	3.9	5	2.0	19	
Grantham	1.29	8	20	0.44	2	1.5	3	0.8	22	
Grand Valley	0.92	3	19	0.48	2	11.5	9	3.0	19	
MacCoe	1.02	4	25	0.39	2-31	*	2	*	28-31	
Princeton										
Sydenham	2.68	4	26	1.60	2	4.0	1	4.0	11	
Strathroy	0.79	2	23	0.63	2	12.5	6	3.0	27	
Watford	1.86	4	27	0.98	31					
Westport	0.89	2	22	0.84	2	5.9	7	1.0	8-13	
Westminster	1.24	2	27	0.75	2	9.0	2	5.0	21	
Wooler	1.53	4	25	0.49	30	3.0	2	2.0	13	
Wesley	1.17	5	12	0.34	3	17.5	14	3.0	12	
Wattlewyl	1.80	2	18	1.30	2	19.5	11	6.0	9	
Winton	1.70	2	23	1.40	2	18.0	6	6.0	11	
QUEBEC—										
Bark Lake (Riviere Desort)	0.70	2	19	0.50	6	22.9	10	5.1	19	
Kipawu Dam										
Lacerno										
Perkins Mills	1.03	2	19	0.95	2	26.5	10	6.0	30	
Quize Dam	2.59	4	20	1.20	6	9.3	7	2.0	7-22	
Timiskaming										
New Brunswick—										
Point Escommure	1.38	6	22	1.05	20	9.5	3	4.2	27	
NOVA SCOTIA—										
Big Mashamush Lake (Ma- hono)										
Kentville.	8.05	6	23	2.00	27	17.3	2	15.0	24	
Miltoa										
Mashamush River (Mahono)										
Nappan	5.42	6	24	1.32	27	2.0	1	2.0	9	
South Alton	6.37	9	15	1.92	27	22.0	7	8.0	25	
White Rock	5.11	7	22	1.08	26	4.0	2	3.0	24	



PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF DECEMBER, 1912.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.			Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND			
				Mean reduced.	Highest.	Lowest.				Range.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.
BRITISH COLUMBIA—																							
Aldah	50	35 133	38	2240	29.60	30.42	28.79	1.63	7	12	0	5	10	15	19	1	3	3	62	11.0	44.48	40.92SE	
Barkerville	53	2 121	35	4180	29.91	30.58	28.92	1.66	81	7	12	0	0	0	12	1	0	56	62	4.0	40.92SE		
Kamloops	50	42 129	29	1245	29.99	30.66	29.07	1.59	94	5	7	1	8	9	6	8	14	0	8	62	4.6	18.22 NW	
Nanaimo	49	10 123	37	125	29.93	30.59	29.17	1.42	94	8	16	0	0	0	24	0	1	26	62	7.0	55.31 NW		
Prince Rupert	54	18 130	18	170	29.74	30.44	28.91	1.53	85	9	23	0	4	13	13	11	0	2	2	17	62	4.5	12.68
Triangle Island	50	52 129	5	680	29.88	30.58	28.97	1.61	93	10	21	6	1	4	23	0	5	2	21	0	42	22.1	70.30SE
Traquille	50	41 120	29																				
Vancouver	49	17 123	5	136	30.07	30.66	29.18	1.48	88	8	17	1	1	25	11	3	5	4	0	9	62	4.8	30.31W
Victoria	48	21 123	19	85	30.06	30.67	29.17	1.50	90	8	13	15	8	10	7	5	10	8	1	0	62	10.2	47.31SW
YUKON—																							
Dawson	64	4 139	20	1200	29.76	30.38	29.08	1.30	—	7	9	20	0	2	5	18	0	0	1	49	93	3.4	25.27N
ALBERTA—																							
Banff	51	10 115	34	4542	29.96	30.49	29.13	1.36	65	5	3	0	1	0	0	0	36	18	3	4	62	8.0	45.26W
Calgary	51	2 114	2	3389	29.85	30.37	29.13	1.22	31	1	1	2	0	0	6	4	6	3	26	14	62	5.0	24.9NW
Edmonton	53	33 113	30	2158	29.73	30.42	28.98	1.44	74	4	2	4	2	0	4	6	19	14	4	0	53	5.1	24.27NW
Medicine Hat	50	1 110	37	2101	29.82	30.35	29.01	1.27	83	6	1	8	2	0	0	9	24	28	14	8	62	5.3	18.20W
SASKATCHEWAN—																							
Battleford	52	41 108	20	1620	29.92	30.59	29.23	1.34	4	2	9	2	3	5	1	29	12	7	34	93	0.6	30.9NW	
Moose Jaw	50	21 103	35	1759	29.88	30.46	29.01	1.42	95	4	2	9	2	3	5	7	7	12	6	15	62	4.7	29.9NW
Prince Albert	53	10 106	0	1832	29.83	30.47	29.01	1.39	90	5	6	3	2	1	4	8	21	6	17	0	62	12.0	35.7NW
Qu'Appelle	50	30 103	47	2115	29.84	30.40	28.95	1.45	81	4	3	2	0	2	7	4	30	35	13	0	93	8.6	22.9N
Swift Current	50	20 107	45	2439	29.90	30.49	29.17	1.32															
MANITOBA—																							
awawene (St. Alban's)	49	42 99	33	1180	28.59	29.07	27.67	1.40	95	5	8	2	5	2	2	0	2	16	24	40	93	5.2	34.30NW
Minnedosa	50	15 99	50	1699	29.88	30.46	29.01	1.42	95	6	9	3	4	4	11	5	7	18	8	2	62	7.3	30.2SW
Le Pas	53	19 101	15	890	29.90	30.47	29.01	1.39	95	6	9	5	4	4	18	9	10	25	4	93	10.8	37.9NW	
Winnipeg	49	53 97	7	760	29.88	30.46	29.01	1.52															
ONTARIO—																							
Cochrane	49	2 81	0	946																	6.5	23.2NW	
Guelph	43	33 80	16	1050	30.05	30.62	29.30	1.32	91	9	16	9	2	0	10	9	9	4	9	10	62		35.61SW
Halleybury	47	2 79	30	987	29.90	30.47	29.01	1.21	84	8	15	1	13	0	9	4	14	9	12	0	62	10.2	32.6W
Kingston	44	13 76	29	285	29.96	30.53	29.02	1.08	84	8	15	1	13	0	9	4	14	9	12	0	62	10.2	32.6W
Lansbury	44	20 78	45	872	29.95	30.52	29.01	1.07	85	6	12	0	3	3	18	0	2	3	37	0	95		9.7
London	42	59 81	13	808	29.96	30.53	29.01	1.07	85	6	12	0	3	3	18	0	2	3	37	0	95		9.7
Ottawa	45	26 75	42	294	29.93	30.67	29.39	1.28	94	8	11	3	4	15	1	1	14	11	12	1	62		9.7
Parry Sound	45	19 80	0	635	29.89	30.45	29.01	1.02	88	8	15	6	9	1	15	3	11	2	8	1	62	9.7	26.6SW
Port Arthur	48	27 89	12	144	29.85	30.42	29.01	1.02	85	7	11	12	2	4	0	4	0	32	33	6	93	10.2	38.10NW
Port Stanley	42	40 81	13	592	29.99	30.56	29.01	0.89	82	5	16	2	0	1	11	3	36	29	12	2	93	14.0	40.8W
Southampton	44	30 81	21	656	29.96	30.53	29.01	0.95	86	9	15	6	5	2	12	18	36	5	9	0	93	13.2	50.6NW
Stonerville	46	9 78	6	557	29.99	30.64	29.34	1.30	81	4	2	1	0	7	3	0	1	16	2	33	62	1.1	21.3W
Toronto	43	49 79	24	359	29.96	30.48	28.94	1.09	81	7	9	1	5	3	4	0	15	27	7	0	62	17.5	46.16SW
White River	48	35 85	16	1252	29.83	30.40	29.01	0.80															
Woodstock	43	8 80	47	980	29.92	30.49	29.01	1.36	81	8	11	3	0	2	4	6	50	15	13	0	93	12.9	36.10SW
QUEBEC—																							
Father Point	48	31 68	19	20	29.86	30.60	28.77	1.83	85	8	15	8	2	7	3	7	14	31	21	0	93	16.3	47.6W
Montreal	45	30 73	35	187	29.93	30.67	29.01	1.16	74	7	12	14	1	5	3	23	21	24	2	0	93		
Quebec	46	48 71	13	296	29.90	30.63	28.96	1.67	82	7	17	2	24	1	1	4	26	26	7	2	93	12.5	40.8SW
Sherbrooke					29.94	30.71	29.31	1.58	79	7	6	1	0	1	12	21	30	10	0	93	9.6	47.10W	
NEW BRUNSWICK—																							
Chatham	47	3 65	39	21	29.88	30.59	28.81	1.78	77	5	6	2	4	6	3	0	33	23	14	2	93	6.2	32.20W
Fredericton	45	57 62	36	164	29.90	30.59	28.73	1.83	85	5	5	2	5	0	0	6	18	22	33	7	93	9.9	37.27NW
St. John	45	17 66	4	70	29.91	30.57	28.56	1.01	74	5	8	11	9	2	7	6	18	7	29	4	93	16.3	50.30SW
NOVA SCOTIA—																							
Halifax	44	39 63	36	88	29.89	30.52	28.64	1.88	88	6	8	4	9	3	0	1	7	14	24	0	62	14.8	49.30SW
Sable Island (MStation)					29.92	30.30	27.91	1.69															
Sedney	46	10 60	10	35	29.88	30.42	28.81	1.92	81	8	18	2	2	3	5	6	26	7	39	3	93	20.4	61.17W
Wolfville	45	7 64	29		29.91	30.56	28.61	1.90															
Yarmouth	43	50 66	2	65	29.94	30.57	28.62	1.95	79	7	12	14	4	4	5	6	16	16	10	0	62	16.2	45.28NW
P. E. ISLAND																							
Charlottetown	46	11 63	10	38	29.85	30.54	28.46	2.08	83	7	10	1	4	1	2	10	13	8	16	7	62	9.8	28.20SW
NEWFOUNDLAND																							
Burin	47	0 55	10	27	29.79	30.34	28.72	1.62															
Fogo	49	43 54	17	30																			
Port aux Basques	47	35 59	10	27	29.78	30.34	28.72	1.92	9	24	1	3	6	1	7	8	13	23	0	62	19.7	54.28NE	
St. George's	48	27 58	31	21	29.76	30.39	28.20	1.99	9	20	1	0	5	5	5	15	5	26	0	62			
St. John's	47	34 52	42	125	29.77	30.29	28.71	1.58	7	11	1	3	0	4	6	19	6	23	0	62	13.6	35.29NW	
BERMUDA																							
Prospect	32	17 64	46	151	30.2	30.46	29.87	0.59	80	6	0	21	9	9	4	11	18	7	11	0	93	11.6	39.28SW

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF DECEMBER, 1912

STATION	DIRECTION OF WIND FROM								Total num- ber of Obser- vations	
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	0	0	4	5	3	4	11	5	0	32
Didsbury.....	0	0	0	2	3	6	6	14	0	31
Endiang.....	5	5	8	16	0	0	0	2	0	36
Halkirk (Emsburg).....	0	1	0	8	9	24	5	15	0	62
Hillsdown.....	1	3	0	5	6	18	0	20	9	62
Loveland.....	1	1	1	8	7	14	17	13	0	62
Macleod.....	1	0	0	0	0	1	49	0	11	62
Pakan (Victoria).....										
Ranfurly (Waitefield).....										
SASKATCHEWAN—										
Chaplin.....	2	1	0	7	0	1	5	15	0	31
Crescent Lake.....	1	2	0	1	6	7	4	8	2	31
Estevan.....	2	1	2	3	8	7	2	5	1	31
Fort Qu'Appelle.....	2	6	9	7	5	5	13	12	3	62
Grenfell (Brownhill).....	1	7	2	2	3	24	4	19	0	62
Indian Head.....	9	1	1	2	9	24	10	30	7	93
Larchmount (Glenbryan).....	0	1	0	0	0	25	27	9	0	62
Moosomin.....	0	1	1	6	1	4	7	11	0	31
Muenster (St. Peter's Monastery).....	0	10	1	4	2	7	3	29	0	56
Onion Lake.....	5	2	3	0	0	0	9	12	0	31
Pense (Gatesgarth).....	0	1	1	7	0	6	6	10	0	31
Waseca.....	2	3	3	5	0	4	9	5	0	31
MANITOBA—										
Berens River.....	13	3	4	3	26	0	1	11	1	62
Brandon.....	5	13	0	5	0	4	20	30	16	93
Hillview.....	5	2	10	5	1	25	11	34	0	93
Moose Horn Bay (Aitkensville).....	13	3	6	7	9	2	4	8	2	54
Morden.....	8	4	3	2	4	10	16	12	3	62
Oak Bank.....	2	1	1	2	5	6	2	12	0	31
Stony Mountain.....										
ONTARIO—										
Agincourt.....	1	3	15	0	4	18	43	9	0	93
Alton.....										
Beatrice.....	6	0	0	11	26	12	3	12	23	93
Biram.....	0	2	1	3	20	14	14	8	0	62
Clinton.....	0	0	5	2	22	10	16	7	0	62
Cottam.....	5	0	0	3	5	12	4	2	0	31
Gravenhurst.....										
Lindsay.....										
North Bruce.....	7	5	5	7	19	18	18	14	0	93
Orillia.....	2	0	2	4	8	7	5	3	0	31
Owen Sound.....										
Point Clark.....	6	1	3	4	16	16	12	4	0	62
Port Dover.....	1	0	2	1	5	7	10	5	0	31
Stoney Creek.....	0	3	4	0	1	33	44	8	0	93
Uplands.....	5	0	1	0	19	1	5	0	0	31
Wexford.....	1	0	1	0	2	13	4	5	4	30
QUEBEC										
Abitibi.....	19	0	9	11	26	9	16	3	0	93
Anticosti, W. Pt.....										
Anticosti, Heath Point.....										
Bicquet.....	11	8	0	3	32	10	8	19	2	93
Brome.....	0	5	2	3	18	15	47	0	3	93
Cape Chatte.....	4	4	5	0	2	10	37	6	25	93
Cape Magdalen.....	0	0	6	2	25	5	1	47	12	93
Cap Rouge.....	20	4	0	0	0	0	0	7	0	31
Chicoutimi.....	0	34	0	6	0	2	0	38	13	93
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	1	3	1	0	0	24	2	0	31
Moncton.....	0	2	0	4	1	0	5	19	0	31
Pt. Lepreaux.....	7	9	1	6	0	13	11	31	0	78
Sussex.....	0	2	0	1	0	1	1	8	16	29
NOVA SCOTIA—										
Kentville.....	0	5	3	3	3	7	3	7	0	31
Parrsboro.....										
Port Hastings.....	0	4	0	11	1	7	0	8	0	31
Sable Island, E. Pt.....										
Truro.....										
Whitehead.....	10	2	0	12	10	30	14	15	0	93



MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
DECEMBER 1912.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.....						T	05	16	18	19	12							
Salmon Arm.....							03	13	22	27	19	14	1					
Nasirno.....																		
Vancouver.....							08	12	14	19	11	11	04					
Agassiz.....							06	19	18	17	18	11	01					
Tranquille.....																		
Summerland.....						02	14	24	36	21	26	05						
Kamloops.....							16	27	29	33	28	19						
Edmonton.....																		
Lethbridge.....						08	32	51	59	57	55	55	45					
Lacombe.....						11	30	41	42	48	41	41	00					
Medicine Hat.....																		
Fort Dunvegan.....									07	17	06	02						
Fort Vermilion.....						07	26	35	47	44	33	12						
Battleford.....																		
Indian Head.....							15	32	41	43	37	05						
Moosejaw.....																		
Scott.....					T	17	33	48	54	52	51	56	0					
Rosthern.....						01	51	34	41	38	27	21	03					
Brandon.....						17	26	33	42	41	32	07						
Winnipeg.....						05	11	15	20	23	19	39						
Haileybury.....						04	08	09	13	19	17	11	03					
Woodstock.....						11	20	23	27	28	31	26	08					
Lindsay.....						T	11	17	16	19	11	14	06					
Barrie.....						03	13	12	13	10	16	09	T					
Toronto.....						06	26	29	32	27	23	26	08					
Kingston.....						06	24	36	35	36	31	17	01					
Ottawa.....						09	21	29	38	39	37	29	31					
Montreal.....																		
Cap Rouge.....						05	17	18	21	19	19	26	04					
Quebec.....						12	26	35	39	42	35	29	10					
Sherbrooke.....						04	15	25	30	35	34	24	04					
Fredericton.....						16	41	50	52	56	52	50	57	02				
Charlottetown.....						08	21	25	27	26	27	27	22					
Nappan.....						06	28	37	37	47	39	44	26	01				

	Victoria	Salmon Arm	Namaino	Vancouver	Agassiz	Tranquille	Summerland	Kamloops	Edmonton	Lethbridge	Lacombe	Medicine Hat	Fort Dunvegan	Fort Vermilion	Battleford	Indian Head	Moose Jaw	Scott	Rosthern	Brandon	Winnipeg	Haileybury	Woodstock	Lindsay	Barrie	Toronto	Kingston	Ottawa	Montreal	Cap Rouge	Quebec	Sherbrooke	Fredericton	Charlottetown	Nappan
Number of days of maximum sunshine in one day "100"	51	54		49	72		72	62		90	85		40	90		64		84	82	75	75	87	53	63	47	69	67	77		70	78	81	90	71	86
Number of days of maximum sunshine in one day "100"	4	24		7	8		5	14		8	23		8	13		1		22	1	1	27	29	18	18	10	26	33	21		3	3	6	1	29	5
Number of days of maximum sunshine in one day "100"	16	18		17	22		15	15		1	5		25	15		13		6	12	8	21	16	19	14	13	9	13	14		1	13	15	11	15	11

*Auroras recorded:*

1. Aitkensville IV, Aweme IV, White Shore Lake IV.
- 2.
- 3.
- 4.
- 5.
6. Aweme III, Waseca, Waitefield IV.
7. Mistassini III.
8. Waseca, Grenfell IV, Waitefield IV.
9. Grenfell III.
10. Waitefield IV.
11. Waitefield IV.
12. Mistassini IV.
13. Aitkensville IV.
14. Waitefield IV, Sion II, Hillsdown III.
15. Melfort IV, Sion IV.
16. Sion IV.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.

*Thunder recorded:*

- 1.
- 2.
- 3.
4. Madoe.
5. Madoe.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
16. Goldstream Lake.
17. Clayoquot, Goldstream Lake.
18. Sooke, Prince Rupert, Victoria.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
28. Victoria.
- 29.
- 30.
- 31.

## FORECASTS FOR DECEMBER 1912

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1278. These were divided as follows:—

District.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	79	63	9	7	85.4
Saskatchewan.....	80	59	14	7	82.5
Manitoba.....	83	62	15	6	83.7
Lake Superior.....	112	76	28	8	80.3
Lower Lake Region.....	115	94	18	3	89.6
Georgian Bay.....	116	87	23	6	84.9
Ottawa Valley.....	107	73	26	18	80.4
Upper St. Lawrence.....	107	79	21	7	83.6
Lower St. Lawrence.....	110	78	21	11	80.5
Gulf.....	111	75	28	8	80.2
Maritime Provinces West.....	124	85	28	11	79.8
Maritime Provinces East.....	124	89	21	14	80.2
Total.....	1278	920	232	106	81.8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
Jan. 25th, 1912.





Department of Marine and Fisheries, Canada

METEOROLOGICAL SERVICE

# MONTHLY WEATHER REVIEW

BY

R. F. STUPART, Director

1913

TORONTO







DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

JANUARY, 1913

No 1.

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

From the Pacific coast to Algoma the mean temperature was lower than average, but eastward again to the Atlantic Ocean was considerably higher than usual.

### BRITISH COLUMBIA.

Severely cold weather prevailed in the interior of the Province until the 22nd, but during the last week much milder conditions were recorded in all districts. In the East Kootenay temperatures below zero were recorded frequently during the first three weeks, the extreme minimum at several stations reaching 25° below or lower. In the country about the upper reaches of the Fraser River the extreme lowest ranged between 38° and 56° below zero. From the mouth of the Fraser to Harrison Lake zero temperatures were recorded on one or two days or not at all. On Vancouver Island the coldest day was the 19th, when 21° above zero was recorded at Victoria. During the last week occurred the highest temperature of the month, which exceeded 40° in the Kootenays and along the Upper Fraser, and 50° at points on the Lower Mainland and on Vancouver Island.

### THE WESTERN PROVINCES.

In Alberta the temperature was continuously below zero from the 10th to the 12th, and from the 14th to the 20th, in the southern portion; while in the Peace River district the daily maxima were below zero from the 4th to the 24th. In Saskatchewan the same conditions prevailed from the 4th to the 7th, and from the 10th to the 24th, in Manitoba from the 4th to the 7th, 11th to 14th, 18th to 22nd, 24th and 25th. From the 25th to 29th there was an interval of milder weather, during which the highest temperatures of the month, exceeding the freezing point, occurred.

### ONTARIO.

During the latter 15 days of the month the weather was exceptionally mild. As an instance of this we may take the temperatures at Stoney Creek in the Niagara district. Here the average maximum temperature for the last 15 days was 46°, the average minimum 32°, and the average tempera-

ture, therefore,  $40^{\circ}$  or but  $5^{\circ}$  less than the mean temperature for April at the same station. In the counties north of Lake Ontario, on the 9th and 13th, the minimum temperature was below zero, while in the country about the Upper Ottawa River, and in the districts of Algoma, Nipissing, Thunder Bay and Rainy River zero temperatures were recorded on several days. The highest temperature recorded in the Province was  $54^{\circ}$ , registered at Grimsby and at Stoney Creek, in the Niagara Peninsula, if we except that of  $60^{\circ}$  recorded on Pelee Island in Lake Erie.

## QUEBEC.

The most remarkable feature of the weather in Quebec was the sudden changes of temperature throughout the month. At Brome, in the extreme west of the Province, the daily range varied from  $1^{\circ}$  on the 21st to  $38^{\circ}$  on the 6th. On 13 days the range was less than  $10^{\circ}$ , while on 8 days it was greater than  $25^{\circ}$ . At Ste. Anne de la Pocatiere, in Eastern Quebec, the greatest range in 24 hours was  $63^{\circ}$  on the 21st, when the temperature rose from  $25^{\circ}$  below zero to  $38^{\circ}$  above zero.

## THE MARITIME PROVINCES.

In many districts the average maximum temperature exceeded  $35^{\circ}$  and at some points exceeded  $40^{\circ}$ . The highest temperature recorded was  $60^{\circ}$  at Antigonish on the 13th. The mean temperature exceeded the normal mean by from  $7^{\circ}$  to  $9^{\circ}$ .

## PRECIPITATION.

In British Columbia, Alberta, the Peninsula of Ontario, and in Quebec the total amount recorded was greatly in excess of the normal. In Saskatchewan and Manitoba, and in Northern Ontario it was generally deficient, while in the Maritime Provinces the distribution was very irregular, some stations reporting considerable excess, others a deficiency as great.

## HIGH AREAS.

Eleven areas of high pressure were charted. Five first appeared in the northwestern portion of the continent, two in the northern portion, three on the Pacific States coasts, and one in the Middle Pacific States.

The general path of the areas was either well to the northward or else to the southward of the Great Lakes. In nearly all cases they were unusually feeble for mid-winter systems, while their accompanying cold waves were not of lengthy duration.

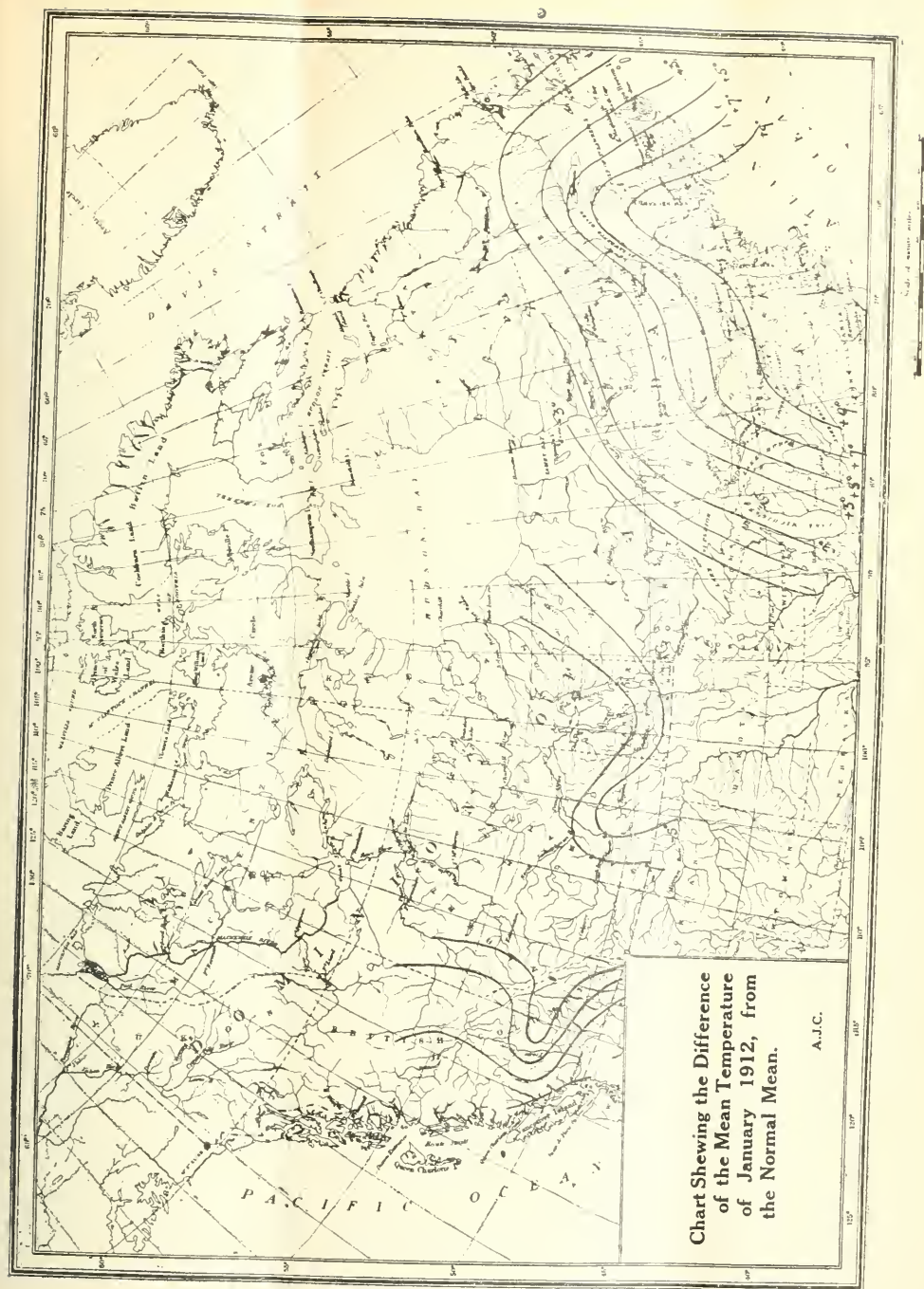
## LOW AREAS.

Sixteen areas of low pressure were charted. Twelve first appeared on the Pacific coast line between the State of Washington and Alaska, one in the interior of British Columbia, and three in the vicinity of Texas. The general course of the areas was over the Great Lakes, thence to the St. Lawrence Valley, the Maritime Provinces and Newfoundland.

Many of the areas were both widespread and important, resulting in numerous strong winds and gales, but as their accompanying precipitation was largely as rain there was little or no inconvenience to travel by snow and drift.

## ATMOSPHERIC PRESSURE.

The results at the telegraphic reporting stations indicate that the atmospheric pressure over the Maritime Provinces and British Columbia during January was greater than usual, and elsewhere in Canada it was sub-normal. Departures from average in the Maritime Provinces were between  $+0.05$  and  $+0.10$  of an inch, and in British Columbia about  $+0.02$  of an inch. From Lake Superior to the Rockies the deficiency in pressure was about  $-0.05$  to  $-0.08$  of an inch; from Lake Huron to Quebec the negative differences were somewhat less.



## WINDS, JANUARY, 1913

PROVINCES AND STATIONS.	Total Mileage	Greatest Mileage in 24 hours.	Greatest Mile. in 1 Hour			Number of Days of			GENERAL DIRECTION.
			Miles	Direction	Date	Gales	Strong Wind	Fresh Winds	
BRITISH COLUMBIA									
Atlin	6587	553	36	NW	7	2	10	7	NE-NW
Prince Rupert	6109	326	31	SW	25	1	12	7	E NE
Victoria	6660	415	47			5	8	10	SW W N
Pont Garry		28					1	2	E
Vancouver	2638	196	16	SW	18				
Kamloops									
ALBERTA									
Edmonton	3906	331	18	NW	1			9	NW
Calgary	3548	316	28	NW	31		6	7	NW
SASKATCHEWAN									
Battleford			19	N	4				NW
Prince Albert									
Swift Current									
Qu'Appelle	7570	489	29	NW	30		13	13	
MANITOBA									
Le Pas									
Winnipeg	8024	581	34	SE	13	1	15	8	NW
ONTARIO									
Port Arthur	7508	417	32	NW	31	1	11	16	NW
White River	4148	355							N.N.W
Cochrane	5198	365	23	NW	23		6	10	
Tarry Sound	6993	283	25	SW	17		2	28	SW
Souhampton	8250	323	37	NW	30-31	2	18	8	SW
Pelee Island	11122	793	44	W	31	8	15	5	
Windsor	8395	549	27	SW-NW	4-15-31		14	13	SW
Geoph.									
Toronto	11171	638	40	NW	10	6	21	4	W
Kingston	8939	521	34	W	23	2	16	12	SW
Stonecliffe	3016	200	18	W	11			5	
Ottawa									
QUEBEC									
Montreal			41			3	11	17	SW,W
Sherbrooke	7362	646	48	SW	4	8	11	9	W
Quebec	9533	657	54	NE	4	7	16	5	W,NE
Father Point	13244	966	63	W	4	15	11	4	S,SW,NW
Anticosti	16509	1190	62	NW					
Harrington									
NEW BRUNSWICK									
Pt. Escuminac									
Fredericton	6546	600	36	W	4	2	9	9	NW
St. John	12082	985	53	SW	4	12	12	4	NW
Pt. Lepreaux	14098	1411	92	NW	4	18	6	3	SW,NW
NOVA SCOTIA									
Yarmouth	11156	953	53	NW	4				S
Wolfville	10741	922	46	SW	1	13	6	6	S,SW,W,NW
Halifax	10626	809	47	W	4	13	10	6	NW
Sable Island	15663	1245	64	SW	4				
Flat Point	14290	940	62	NE	9	19	9	3	SW,NW
PRINCE EDWARD ISLAND									
Charlottetown	7104	561	34	S	23	4	9	12	S,NW

\*29 Days

# FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on January 3rd, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—725 mm.

Temperature—4.0 C.

Direction of flight at Beginning—Northeast.

Fell—790 km. distant N.50°E.

Maximum Height—11.2 km.

Minimum Temperature —61.0 C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = .3	725	4.0	2.5
.5	708	3.5	— 2.5
.8	675	2.5	— 1.0
1.0	662	— 1.0	— 2.5
1.3	636	— 2.5	
1.5	621	— 3.5	
2.0	583	— 5.0	
2.1	578		
2.5	548	— 6.5	— 8.0
3.0	511	9.5	11.0
3.5	479	—13.0	—14.5
4.0	448	—16.5	
4.5	419	—19.5	
5.0	391	—23.0	
5.5	365	25.0	—26.5
6.0	340	— 27.5	—29.0
6.5	316	—31.0	—32.0
7.0	295	—34.0	—35.0
7.5	274	—38.5	—40.0
8.0	254	—43.0	—45.0
8.5	237	—46.0	—48.0
9.0	218	— 49.0	—51.0
9.5	203	52.0	—54.5
10.0	188	—55.0	56.0
10.5	174	—55.0	—57.0
10.8	165	—59.5	—61.0
11.0	161	—59.5	— 60.5
11.2	156	—59.0	

A low pressure area extended from Northern Ontario southward to the Gulf of Mexico, pressure being lowest in Northern Ontario.



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1913.

\*Stations not furnished with Registering Thermometers.

STATION.			Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.									
	Latitude N.	Longitude W.		Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.
BRITISH COLUMBIA—																			
S. Vancouver Island																			
Alberni (Beaver Creek)	49 15	124 49	300	31.0	— 2.6	16	39.0	31	2.0	19 11 4	6.96	— 2.84	0.69	15	10				
Clayoquot	49 11	125 55	27	37.1	— 2.2	14	57.0	7	20.6	18 9 2	13.97	— 0.62	3.21	21	10				
Cowichan (Tzouhalem).	48 25	123 42	170	33.2	—	1	50.0	24	16.0	18 11 2	9.66	—	2.71	17	14				
Departure Bay	49 13	23 58	39	37.7	—	1	46.6	31	9.5	19 9 7	5.48	—	0.70	18	13				
Nanaimo	49 10	123 37	125	35.0	— 0.8	12	48.0	26	11.1	19 19 3	5.58	— 0.93	0.82	19	12				1
Nanosa Bay	49 17	124 12	130	34.1	—	1	49.0	25	24.0	5-22 8.5	2.18	—	0.63	12	19				4
Salt Spring Island.	48 50	123 20	—	32.8	—	4	46.0	25	18.0	18-19 7.8	5.70	—	0.80	19	12				2
Sooke	48 41	123 44	25	34.1	—	3	50.0	28	18.0	19 9 7	8.81	—	1.43	17	14				
Victoria	48 24	123 19	85	36.1	— 4.0	21	50.6	25	21.0	19 8 6	4.54	0.00	0.67	20	11				2
N. Vancouver Island																			
Holberg	50 39	128 18	—	33.6	—	3	48.0	28	20.0	19 6 9	13.22	—	2.24	24	7				
Swansea Bay	50 37	126 53	—	28.0	—	5	41.0	24	9.0	18 5 6	22.07	—	5.50	19	12				
Triangle Island	50 52	129 5	680	35.4	—	2	45.0	26	22.0	17 6 2	9.27	—	1.30	22	9				8
Winter Harbour (Quitsino)	50 32	127 40	—	33.7	— 6.2	16	47.0	27-30	15.0	14 6 4	14.09	+ 1.22	2.50	22	9				
Lower Fraser River																			
Agassiz	49 14	121 31	52	28.8	— 5.5	22	47.0	25	4.0	19 8 2	13.24	+ 7.20	1.32	22	9				
Chilliwack	49 10	121 57	21	27.1	— 5.8	12	45.0	25	1.0	19 8 8	10.65	+ 3.13	1.46	22	12				4
Hope	49 23	121 25	500	22.8	—	3	43.0	27	2.0	19 11 9	9.79	—	1.80	19	9				
Ladner	49 05	123 4	—	30.5	— 5.9	26	44.0	26	8.0	19 7 5	2.27	— 2.52	0.90	9	22				2
New Westminster	49 13	122 34	330	30.5	— 3.9	26	44.0	26	8.0	19 7 5	8.84	+ 3.29	1.28	20	11				4
North Nicomen	49 12	122 2	59	29.6	— 5.1	21	45.0	25-27	3.0	19 10.9	8.80	+ 0.46	1.22	15	16				1
Pemberton Hatchery	50 20	122 33	—	19.7	—	5	40.0	31	8.0	13-19 8.9	3.20	—	0.50	10	21				
Runkin (Stave Falls)	49 16	122 23	125	28.8	—	4	43.0	1	0.0	18 9 1	8.28	—	1.23	19	12				
Steveston (Garry Point)	49 21	123 17	—	32.0	— 3.6	17	46.0	26	8.5	19 11.0	5.37	+ 0.05	0.80	17	14				4
Vancouver.	49 17	123 5	136	32.5	— 5.0	12	46.8	25	12.9	19 7 3	9.62	+ 1.44	1.18	23	8				5
Upper Fraser River																			
Babine Lake	55 38	126 26	—	2.8	—	5	38.0	25	— 37.0	18 18 6	2.25	—	0.45	11	20				
Barkerville	53 02	121 35	4180	8.1	— 10.5	23	35.0	27	— 37.0	12 12 5	7.50	+ 4.77	1.00	17	14				
Chilcoit (Big Creek)	51 40	123 0	3180	8.8	+ 1.7	10	49.0	28	— 38.0	13 22 1	0.70	+ 0.06	0.25	5	26				
Fort George	—	—	—	4.2	—	1	44.0	26	— 56.0	12 20 9	3.43	—	0.50	13	18				
Fort St. James (Stuarts Lake).	54 28	124 12	2280	3.1	— 6.7	20	41.5	28	— 48.0	12 18 5	2.59	+ 1.02	0.51	15	16				
Hydraulic	—	—	—	9.7	—	1	44.0	26	— 44.0	12 15 7	4.60	—	0.70	19	12				
Queensell	52 59	122 30	1700	8.0	— 4.6	18	43.0	26	— 38.0	12 16 0	2.20	+ 1.04	0.80	8	23				
Okanagan Valley																			
Hadley	49 35	120 10	1771	18.1	—	9	50.0	23	— 11.0	12 14 4	1.38	—	0.35	15	16				
Hadley (Nickel Plate)	—	—	—	13.8	—	9	40.0	27	— 19.0	12 12 8	3.25	—	0.60	11	20				
Keremeos	49 10	121 45	31	15.6	—	6	48.0	31	— 4.0	13 10 9	0.98	—	0.30	10	21				
Kelowna (Okanagan Mission)	49 15	119 29	1200	19.1	— 6.0	13	42.0	2	— 15.0	19-20 15 1	1.70	+ 0.34	0.25	12	19				
Penticton	49 29	119 35	1200	22.6	—	6	50.0	25	— 4.0	19 14 1	0.64	—	0.17	12	19				
Princeton	49 29	120 29	1660	11.4	— 4.9	16	44.0	25	— 26.0	13 21 0	2.13	— 0.24	0.45	10	21				
Richlands	49 36	119 40	1100	14.7	—	5	52.0	2	— 24.0	12 21 2	0.35	—	0.25	2	29				
Summerland	49 36	119 40	1100	18.4	—	6	48.0	25	— 10.0	13 14 9	1.66	—	0.30	10	21				
Vernon (Coldstream Ranch)	50 14	119 15	1246	15.3	— 5.8	19	41.0	2	— 17.0	13 14 0	2.45	+ 1.37	0.60	16	15				
West Kootenay																			
Crawford Bay	49 45	116 45	2000	21.6	—	1	39.0	23-31	— 5.0	5 12 7	4 60	—	0.90	15	16				
Creston	49 22	118 27	—	19.5	—	1	45.0	25	— 7.0	4-5 16 8	2.38	—	0.40	13	18				
Grand Forks	49 2	118 27	—	15.6	—	2	33.0	3-25	— 12.0	13 12 5	2.89	—	0.45	16	15				
Greenwood	49 5	118 49	—	16.4	—	2	41.0	31	— 13.0	5-13 23 3	0.98	—	0.30	8	23				
Howser	49 52	117 0	1752	14.1	—	1	36.0	26-28	— 2.0	5-13 10 3	4.10	—	0.50	13	18				
Keelo	49 52	117 0	1752	21.6	—	4	40.0	25	— 4.0	5 11 9	4.13	—	0.80	20	11				
Nakusp	49 29	117 21	1760	18.9	—	1	38.0	25	— 2.5	13 9 2	4.81	—	0.85	15	16				
Nelson	49 29	117 21	1760	20.9	— 3.4	11	45.0	25	— 3.0	5 10 3	4.60	+ 1.12	0.80	15	16				
Rossland	49 5	117 48	3400	19.3	—	10	40.0	25	— 1.5	5 8 9	4.09	—	0.70	13	18				
East Kootenay																			
Akamina	49 10	114 20	4150	13.7	—	4	46.0	26	— 26.0	5 23 8	2.60	—	0.50	13	18				
Canbrook	49 30	115 50	—	18.3	— 3.8	4	45.0	26-29	— 13.0	6 13 4	2.72	+ 1.21	0.60	10	21				
Tobacco Plains (Elko)	49 1	115 5	2684	9.2	—	4	35.0	29	— 18.0	6 13 8	1.28	—	0.28	6	25				
Wilner	50 34	116 14	—	9.2	—	4	35.0	29	— 18.0	6 13 8	1.28	—	0.28	6	25				
Thompson River																			
Ashcroft	50 32	119 7	1180	14.7	—	1	42.0	20	— 15.0	18 13 3	0.40	—	0.09	8	23				
Enderby	50 32	119 7	1180	15.9	— 5.3	11	38.0	25	— 21.0	12 14 7	4.15	+ 0.24	1.13	17	14				
Harper's Ranch	49 41	120 29	1245	14.2	—	32	60.0	15	— 16.0	13 14 4	1.82	—	0.50	10	21				
Kamloops	50 4	120 29	2120	12.1	— 8.0	18	44.0	25	— 30.0	13 12 0	4.14	+ 0.49	0.25	13	18				
Nicola Lake	50 9	120 39	2120	12.1	— 8.0	18	44.0	25	— 30.0	12 17 5	0.78	— 0.24	0.25	7	24				
Pemberton Meadows	50 42	119 35	1152	14.6	—	1	43.0	31	— 22.0	12 16 0	4.70	—	0.80	13	18				
Salmon Arm	50 42	119 35	1152	16.0	—	10	39.0	25	— 11.0	13-19 10 5	3.85	—	0.80	14	17				
Salmon Arm (Exp. Farm).	50 42	119 35	1152	13.8	—	2	35.0	27	— 18.0	13 14 1	7.15	—	0.70	15	16				
Tapscott	50 41	120 29	—	19.8	—	1	45.0	25	— 12.0	13 15 0	4.11	—	0.70	22	9				
Tranquille	50 41	120 29	—	15.3	—	5	37.0	25	— 12.0	19 10 4	0.69	—	0.20	8	23				
North Columbia River																			
Glacier	51 14	117 29	4072	11.7	— 4.5	11	33.0	27	— 16.0	12 11 3	10.10	+ 0.29	2.50	25	6				
Golden	51 0	118 6	1476	8.1	— 1.6	11	37.0	27	— 29.0	12 19 8	4.00	+ 2.01	0.80	11	20				
Invermere	51 16	116 55	2550	7.9	—	1	40.0	29	— 27.0	13 21 6	—	—	—	—	—				
Revelstoke	51 16	116 55	2550	16.9	— 3.0	12	40.0	1-29	— 13.0	13 13 4	7.57	+ 2.52	1.30	22	9				



STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION				Days with 0.1 or more.	No. of fair days	No. of auroras	No. of thunderstorms	
				Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.					Heaviest fall in month.
BRITISH COLUMBIA—CON.																		
<i>North Coast</i>																		
Bella Coola	52	40	126	54	21.5	—3.4	13	43	0	25-26	0 0	19	9.7	6.68	+2.98	0.85	17	14
Khatda River	54	18	130	18	26.6	—	3	53	0	31	4.6	18	9.3	11.33	—	1.30	20	11
Prince Rupert	56	1	130	1	16.0	—	3	35.0	25-29	—17	0	17	7.4	6.00	—	1.30	13	18
Stewart	56	1	130	1	17.3	—	1	42.0	31	—9	0	18	6.4	3.66	—	1.10	8	23
Terrace																		
<i>Queen Charlotte Islands</i>																		
Ikeda Bay	52	17	131	7	34.8	—	5	48.0	6	20	0	15-18	5.2	6.79	—	1.70	20	11
Masset	53	58	132	9	36.1	—2.8	16	60.0	30	10	0	16	15.4	5.19	—0.77	1.30	16	15
<i>Yukon Boundary</i>																		
Atlin	59	35	133	38	2240	—1.1	—	7	38.5	30	—38.0	19	10.1	1.63	—	0.50	11	20
<i>Yukon—</i>																		
Carcross	60	11	134	34	2171	—5.6	—	6	40.0	31	—43.0	17	17.2	1.42	—	0.63	4	27
Dawson	64	4	139	29	1200	—31.5	—7.6	12	1.0	26	—62.0	22	11.0	0.67	—0.21	0.18	9	22
MACKENZIE																		
Ft Resolution	61	0	113	0	800													
ALBERTA —																		
<i>N. Saskatchewan River</i>																		
Campsis	54	8	114	42		—2.7	—	6	48.3	28	—47.0	11	17.6	1.92	—	0.58	17	14
Daysland	55	52	112	17		—2.8	—	6	44.0	28	—36.0	19-20	16.3	1.00	—	0.30	8	23
Edmonton	53	23	113	20	2158	—0.8	—7.5	29	47.5	28	—34.0	11	14.8	2.49	+1.78	0.45	19	12
Enfield	52	0	112	0	2795	—2.4	—	2	44.0	25	—35.0	19	20.2	0.60	—	0.30	3	28
Gilt Edge	52	59	110	43														
Halkirk (Emsburg)	52	17	112	31		—1.4	—	7	40.0	28	—32.0	19	16.0	0.65	—	0.25	4	27
Loveland	52	30	111	59		—	—	3	44.0	28	—35.0	11	18.7	0.40	—	0.15	5	26
Pacan (Victoria)	54	0	112	0														
Ranfurly (Waitefield)	53	29	111	38	2000	—4.9	—	9	42.0	28	—44.0	20	20.5	1.12	—	0.15	22	9
Sidon	53	54	114	15		—0.6	—	2	46.0	27-28	—44.0	11	24.9	1.84	—	0.60	17	14
Wetaskiwin	52	54	113	23	2480	—0.0	—4.9	11	49.0	27	—33.0	19	17.9	0.89	+0.08	0.15	8	23
<i>The Red Deer River</i>																		
Alix	52	24	113	10		—1.8	—	10	45.0	27	—35							

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1913.

\* Stations not furnished with Registering Thermometers.

STATION.				TEMPERATURE.							PRECIPITATION.				Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.					
SASKATCHEWAN—																			
Qu'Appelle River																			
Brownhill (Grenfell P.O.)	50 23	102 53	1957	-11 2	- 8 6	22	36 0	26	-45 0	19	19 5	1 15	+0 91	0 40	6	25			
Brownlee	50 45	106 0																	
Buchanan	50 59	102 25	1658	-11 9	- 7 9	9	39 0	29	-14 8	21	23 2	1 04	+0 44	0 35	10	21			
Estevan	49 12	103 4	1858	- 1 0	- 4 0	12	39 0	29	-34 0	19	22 6	0 20	-0 46	0 10	2	29			
Fort Qu'Appelle	51 5	103 24		-10 4	-	12	38 0	29	-47 0	20	19 4	1 10	-	0 30	4	27			
Hubbard (Drumague)	52 12	105 9		- 9 4	-	12	39 0	28	-45 5	18	19 6	0 40	-	0 20	2	29			
Humboldt	51 22	105 23		- 6 5	- 6 8	22	40 0	28	-45 0	20	22 2	0 80	+0 46	0 25	8	24			
Imperial	50 28	103 40	1924	-12 6	-	4	22 0	29	-48 0	19	22 7	1 45	-	0 30	8	23			
Kamsack	49 43	102 2	2061	- 0 0	+ 2 1	18	42 0	28	-40 0	20	24 3	0 64	+0 04	0 13	9	22			
Manor	50 21	105 35	1759	- 3 1	-	9	38 0	28	-50 0	20	19 9	0 46	-	0 21	3	28			
Moosomin	52 0	101 37	1881	-16 9	-	9	38 0	28	-50 0	20	19 9	0 46	-	0 21	3	28			
Muenster (St. Peter's Mon.)	52 25	105 0	1870	-13 1	-	2	40 0	28	-52 0	20	21 2	1 49	-	0 66	5	26			
Pulger	50 20	105 0	1879	- 5 1	- 7 3	18	40 0	28	-43 0	20	19 4	1 12	-0 33	0 25	10	21			
Pense (Gatesgarth)	50 30	103 47	2115	- 6 1	- 8 1	29	40 0	28	-41 0	20	19 1	1 12	+0 44	0 25	10	21			
Qu'Appelle	50 30	103 47	2115	- 6 1	- 8 1	29	40 0	28	-41 0	20	19 1	1 12	+0 44	0 25	10	21			
Quill Lake	52 4	104 14	1660																
Regina	50 27	104 37	1885	- 7 0	- 3 6	26	37 0	'98-29	-49 0	20	21 5	0 30	-0 08	0 10	6	25			
Strasbourg	51 5	104 57																	
Yarbo (Fairfield)	50 39	102 4																	
Yellow Grass	49 49	104 9		- 3 3	-	2	39 0	28	-44 0	20	25 5	0 40	-	0 40	1	30			
Yorkton	51 11	102 29		- 4 9	-	3	43 0	28	-43 0	20	24 3								
S. Saskatchewan River																			
Chaplin	50 26	106 39	2202	- 3 1	- 4 0	25	41 0	28	-43 0	19	22 3	0 48	-0 64	0 02	6	25			
East End (Divide)	49 31	105 49		- 4 0	-	4	40 2	28	-32 0	12	15 2	0 45	-	0 10	8	23			
Keivinhurst (Nashlyn)	51 46	108 10		- 3 1	-	12	43 0	28	-41 0	20	24 4	0 65	-	0 20	4	27			
Larchmont (Glenbryan)	49 21	109 29		- 1 6	-	3	42 5	29	-40 6	20	24 6	0 67	-	0 15	6	25			
Oliver	49 54	107 27		- 5 9	-	3	36 8	29	-51 0	20	19 3	0 67	-	0 20	5	26			
Rathmaiden	51 20	108 57																	
Swift Current	50 20	107 45	2429																
N. Saskatchewan River																			
Battleford	52 41	108 20	1620																
Lloydminster	53 18	110 0		- 4 2	-	2	40 5	28	-42 0	20	18 7	0 75	-	0 40	4	27			
Luseland	52 5	109 34		-11 9	-	6	45 3	20	-15 0	20	16 8								
Onion Lake	53 52	109 59		-13 2	-	7	42 0	28	-53 0	20	15 3	1 07	-	0 77	3	28			
Prince (Meota)	51 0	108 20	1700	- 8 6	-	2	38 8	28	-48 8	20	21 1	0 98	-	0 59	10	21			
Scott (E. Farm)	51 59	109 30																	
St. Walburg	53 6	109 29		- 8 6	-	6	40 0	27	-45 0	20	16 5	0 30	-	0 10	5	26	2		
Waseca	53 6	109 29																	
The Saskatchewan Forks																			
Chagoneis (Star City)	52 32	104 13		-13 4	-	4	39 0	28	-45 0	21	19 8	0 95	-	0 30	6	25			
Duck Lake	52 54	106 20		-12 4	- 9 1	27	41 0	28	-45 5	20	16 9	0 80	-0 07	0 20	5	26			
Melfort	52 47	104 30		-13 3	-	3	38 6	29	-49 3	20	17 4	0 55	-	0 20	3	28			
Prince Albert	53 10	106 0	1432	-10 5	-10 5	27	41 0	29	-51 0	20	18 5	1 00	+0 51	0 60	5	26			
Rosthern	52 40	106 20	1657	-13 3	-	3	38 6	29	-49 3	20	17 4	0 55	-	0 20	3	28			
Saskatoon	52 15	106 30	1571	- 9 0	-10 5	27	41 0	29	-51 0	20	18 5	1 00	+0 51	0 60	5	26			
Lower Saskatchewan River																			
Cumberland House	53 56	102 16		-16 6	-	3	32 0	29	-45 0	20-21	17 0								
Lost River	53 17	104 21																	
MANITOBA—																			
Qu'Appelle and Assiniboine Rivers																			
Avenue (St. Albans)	49 42	99 35	1180	- 6 4	- 4 4	26	37 5	28	-34 5	6	20 0	1 08	-0 04	0 25	18	13	1		
Boissevain	50 25	101 1	1703																
Brandon	49 51	99 57	1176																
Carberry	49 32	99 20	1255																
Carman	49 31	98 0	872																
Cypress River	49 33	99 3	1232																
Hillview	49 55	100 33	1440	- 8 7	- 4 3	27	37 0	28	-38 0	6-20	16 9	0 75	-0 27	0 30	5	26			
Minnesota	50 15	99 50	1690	- 8 2	- 7 6	29	34 0	29	-38 3	6	19 4	0 83	-0 05	0 30	13	18			
Ninette	49 24	99 38	1363	- 3 5	-	2	36 0	28	-34 0	20	21 9								
Niniga	49 14	99 51	1649	- 4 2	-	3	35 0	28	-33 0	20	19 4								
Pierson	49 11	101 5	1531																
Pipestone	49 24	100 38	1259																
Portage la Prairie	49 57	98 17		- 7 2	- 4 3	23	28 0	2	-33 0	6	19 4	3 05	+0 15	0 80	8	23			
Portage la Prairie (2)	49 56	98 17																	
Russell	50 59	101 20																	
Souris	49 36	98 40	1212	- 4 0	- 5 5	17	34 0	28	-33 0	20	20 3	1 03	+0 36	0 13	16	15			
Therrien	49 51	100 55	1444																
Verden	49 51	100 55	1444																
The Red River																			
Almasipi	49 14	99 20		- 4 0	- 1 1	11	33 0	28	-35 0	6	19 6	0 45	-	0 10	5	26			
Morden	49 11	98 6	978	- 3 2	-	9	35 0	29	-31 0	6	16 9	1 20	-	0 30	6	25			
Oak Bank	49 57	96 42	800	- 7 8	- 6 0	18	28 0	1	-36 3	6	14 5	1 20	+0 29	0 30	5	26			
Stony Mountain	50 40	97 14	803	- 6 7	- 5 3	31	27 0	1	-38 0	12	21 9	0 50	+0 10	0 40	2	29			
Winnipeg	49 53	97 7	760	- 6 7	- 4 1	35	28 9	1	-31 2	6	14 8	0 75	-0 22	0 16	17	14	2		



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION								
				Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date	Mean daily range.	Amount.	Difference from Average.	Heavy fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.
ONTARIO—Continued—																			
West-Central Counties																			
Alton.....	43 51	80 5	1250	25.7	+ 7.3	27	44.0	21	- 5.6	10 14 8	2.54	+ 0.27	0.40	9	22	..	..	..	..
Brantford.....	43 10	80 21	750	29.6	+ 9.4	32	51.0	20	- 6.0	12 14 9	5.54	+ 3.12	1.98	9	22	..	..	..	..
Elora.....	43 41	80 24	1274	24.6	+ 6.8	15	43.0	17	- 8.0	9 12 8	4.36	+ 1.34	0.90	17	14	..	..	..	..
Guelph.....	43 33	80 16	1050	27.3	+ 9.2	25	46.0	26	- 4.0	9 13 1	3.92	+ 1.82	0.70	12	19	..	..	..	..
Listowel.....	..	..	..	23.5	+ 9.4	15	46.0	19	- 0.0	8 13 1	3.86	+ 0.33	0.72	10	21	..	..	..	..
London.....	42 59	81 13	808	29.0	+ 7.5	30	50.0	17	- 2.5	13 14 6	9.29	+ 5.54	1.47	17	14	..	..	..	..
Toronto.....	43 40	79 24	849	29.3	+ 7.3	24	48.0	17-31	- 7.0	13 12 4	4.11	+ 2.95	0.80	15	16	..	..	1	..
Stratford.....	43 23	81 0	1191	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Woodstock.....	43 8	80 47	980	28.7	+ 8.2	38	47.8	20	- 6.0	13 14 5	4.15	+ 0.68	0.83	13	18	..	..	..	..
Lake Ontario Counties																			
Agincourt.....	43 47	79 16	590	28.0	+ 8.5	17	50.0	17	- 5.0	9 12 1	4.11	+ 1.81	0.67	15	16	..	..	..	5
Aurora.....	43 57	79 24	896	24.1	+ 5	54.5	17	- 10.5	8 14 8	5.62	+ 3.52	1.00	14	17	..	..	..	..	2
Hamilton.....	43 16	79 54	303	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oshawa.....	43 53	78 52	331	31.3	..	4	45.0	18	- 4.0	9 14 6	2.09	..	1.39	3	28	..	..	..	..
Toronto.....	43 40	79 24	350	31.3	+ 8.4	73	51.6	17	- 3.7	9 13 0	4.36	+ 2.04	0.69	14	17	..	..	..	..
Toronto Is. (Lakeside Home)	43 40	79 24	..	32.2	..	8	47.0	17-31	- 6.0	9 12 9	..	..	..	..	..	..	..	..	..
Uxbridge.....	44 5	79 8	886	25.4	..	9	45.0	17	- 10.0	9 11 0	3.13	..	0.60	9	22	..	..	..	..
Wexford.....	43 44	79 17	555	27.4	..	1	48.0	17	- 3.0	9 12 3	4.11	..	0.86	9	22	..	..	..	..
East-Central Counties																			
Bancroft.....	45 1	77 50	1050	21.3	+ 7.4	27	48.0	16	- 22.0	9 19 6	..	..	..	..	..	..	..	..	..
Haliburton.....	45 1	78 28	920	18.6	+ 4.5	15	42.0	17	- 25.0	28 21 9	2.30	..	0.50	11	20	..	..	..	..
Kinmount.....	44 45	78 38	920	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lakeland.....	44 25	78 15	850	24.6	+ 9.2	32	43.5	17	- 11.0	9 16 0	3.95	- 0.08	0.76	14	17	..	..	..	5
Lindsay.....	44 20	79 45	872	23.7	+ 9	45.0	17	- 10.0	9 11 0	9 11 9	4.28	..	0.50	17	14	..	..	..	..
Madoc.....	44 30	77 29	575	24.1	..	9	45.5	18	- 11.0	9 16 4	2.69	..	0.60	12	19	..	..	..	..
Northwood.....	..	..	..	25.2	+ 9.8	41	41.0	2-31	- 14.0	9 17 0	1.85	- 2.15	0.45	9	22	..	..	..	1
Peterboro.....	44 17	78 19	722	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ursa.....	44 54	78 18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
QUEBEC—																			
Middle St. Lawrence																			
Brome.....	45 10	72 36	678	24.3	+ 11.6	32	52.0	3	- 19.0	13 15 3	1.15	- 0.98	0.55	5	26	..	..	..	..
Cap Rouge.....	46 46	71 18	..	15.7	..	2	43.0	18	- 22.2	29 30 0	5.96	..	0.83	22	9	..	..	1	..
D'Arès.....	45 55	71 21	896	18.5	..	3	52.0	2	- 26.0	13 25 3	5.04	..	0.92	12	19	..	..	..	..
Montreal.....	45 30	73 35	187	22.1	+ 8.9	38	46.0	17	- 11.3	13 14 1	4.81	+ 1.06	0.86	20	11	..	..	..	..
Quebec.....	46 48	71 13	296	16.4	+ 6.3	38	43.2	17	- 17.8	29 16 7	3.72	+ 0.52	0.58	20	11	..	..	..	..
Ste. Anne de Bellevue	45 27	73 59	..	22.5	..	7	49.0	17	- 5.0	9 12 4	6.16	..	1.11	18	13	..	..	..	..
Shawinigan Falls	46 34	72 43	..	9.9	..	10	39.0	16	- 33.0	29 30 9	4.70	..	0.70	16	15	..	..	..	..
Sharnbrook.....	45 32	72 5	620	22.4	..	10	47.8	3	- 17.4	13 18 0	3.81	..	0.50	22	9	..	..	..	..
Lower St. Lawrence & Gulf																			
*Anticosti, E. Pt.....	49 6	61 42	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Anticosti, S.W. Pt.....	49 52	64 32	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Anticosti, W. Pt.....	49 52	64 32	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Bicquet.....	48 25	68 53	..	17.9	..	32	40.0	31	- 12.0	29	..	4.15	..	0.70	13	18	..	..	..
*Cape Chatte.....	49 6	66 45	..	15.9	+ 4.4	24	45.0	3	- 12.0	28	..	2.51	..	0.60	8	23	..	..	..
*Cape Magdalen.....	49 16	65 20	93	16.2	+ 5.6	30	45.0	18	- 12.0	29	..	5.30	+ 3.06	1.00	12	19	..	..	..
Father Point.....	48 31	68 19	20	17.4	+ 8.6	35	46.0	3	- 12.0	29 17 9	3.62	+ 1.07	1.00	15	16	..	..	..	..
Ste Anne de la Posaire.....	47 22	70 2	65	15.3	..	2	45.4	18	- 25.0	31 12 7	4.13	..	0.79	11	20	..	..	..	..
Lake St. John																			
Chicoitimi.....	48 25	71 5	150	..	..	35	..	..	..	..	2.64	..	0.60	20	11	..	..	..	..
Chicoitimi (2).....	..	..	..	10.4	..	2	43.0	18-31	- 39.0	29 16 9	1.20	..	0.30	7	24	..	..	..	..
Lake Edward.....	47 39	72 15	1333	9.2	..	3	59.0	31	- 18.0	28 24 8	3.60	..	0.70	10	21	..	..	..	..
La Turge.....	47 27	72 48	820	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Niassimi.....	48 54	72 15	360	4.6	..	2	42.0	18	- 37.0	28-29 23 1	0.99	..	0.25	11	20	..	..	..	4
*Roberval.....	48 31	72 13	352	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Northwestern Districts																			
Abitibi.....	48 33	79 22	..	6.0	+ 4.6	17	42.0	16	- 34.0	7 21 8	1.55	- 0.43	0.40	9	22	..	..	..	..
Manouan Crossing.....	47 54	73 60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Weymontachungue (Dam A)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
White Shore Lake.....	48 12	75 43	..	3.1	..	1	41.0	18	- 14.5	13 24 2	..	..	..	..	..	..	..	..	..
The North Shore																			
Clarka City.....	50 10	66 25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NEW BRUNSWICK—																			
Chatham.....	47 3	65 29	21	18.2	+ 6.8	38	50.5	3	- 12.0	29 19 1	3.38	- 0.20	0.74	17	14	..	..	..	..
Dalhousie.....	48 4	66 22	39	13.7	+ 6.0	31	42.0	18	- 20.0	28 16 5	4.20	+ 1.08	1.20	9	22	..	..	..	..
Fredericton.....	45 57	66 36	164	21.9	+ 9.7	41	51.4	3	- 11.0	10 18 9	4.07	+ 1.10	0.86	15	16	..	..	..	2
Moncton.....	46 0	64 45	50	22.8	+ 7.1	15	54.0	31	- 4.0	9-29 22 6	2.35	- 0.26	0.60	7	24	..	..	..	..
*Point Lepreau.....	45 4	66 28	30	30.0	+ 8.7	34	48.0	3	- 2.0	29	4.12	- 0.58	1.20	12	19	..	..	..	3
St. John.....	45 17	68 4	70	28.3	+ 8.6	40	51.5	3	- 1.0	10-29 17 3	4.27	- 0.27	1.10	15	16	..	..	..	4
St. Stephen.....	45 11	67 16	35	25.6	+ 9.0	16	55.0	3	- 13.0	10 19 0	3.22	- 0.88	0.80	8	23	..	..	..	3
Sussex.....	45 38	65 38	96	24.6	+ 9.5	16	56.0	3-4	- 6.0	10 21 8	3.60	- 0.95	1.40	8	23	..	..	..	..
Williamsburg.....	..	..	..	17.3	..	1	48.0	4	- 13.0	30 21 3	5.03	..	0.97	16	15	..	..	..	..

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1912.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION			Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average					Heaviest fall in month
NOVA SCOTIA—																		
Advocate.....	45 38	61 59	50	27.8	—	1	50.0	18	0.0	29	19.6	7.06	—	1.91	8	23	..	1
Antigonish.....	45 38	61 59	50	28.0	—	2	60.0	13	-2.0	10	25.1	—	—	—	—	—	..	..
Halifax.....	44 39	63 36	88	30.2	+6.1	38	54.2	3	2.6	10	17.6	6.35	+0.50	1.28	18	13	..	4
Kentville.....	45 3	..	40	24.9	—	2	54.0	12	0.0	29	16.8	2.33	—	0.46	13	18	..	1
Memegash.....	..	..	..	27.3	—	1	51.5	4	0.8	29	15.5	3.15	—	0.48	12	19	..	..
New Germany.....	..	..	..	28.0	—	1	55.0	12	5.0	30	19.1	4.41	—	1.40	9	22	..	..
Parrsboro'.....	45 23	64 19	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Port Hastings.....	45 39	61 22	45	22.8	-0.4	21	38.0	15-31	-2.0	12	10.2	3.32	+1.45	1.42	3	28	..	..
Sable Island, E. Pt.....	43 58	59 46	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sable Island (Main Station).....	43 57	60 6	25	34.3	..	14	53.0	4	14.0	10	15.2	6.53	+0.98	0.93	17	14	..	7
Sydney.....	46 10	60 10	35	26.4	+5.0	39	57.5	3	3.0	30	15.5	4.81	-0.44	0.92	16	15	..	1
Turo.....	45 22	63 18	77	26.8	+7.4	38	56.6	4	-9.6	10	20.0	3.57	+1.70	0.74	17	14	..	2
Whiteland.....	45 15	61 8	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windsor.....	44 59	64 6	90	27.6	+5.4	10	54.0	13	1.5	10	15.6	3.17	+0.30	0.95	14	17	..	..
Wolfville.....	45 7	64 20	..	29.3	+7.7	12	57.6	3	3.3	29	18.9	2.61	-1.53	0.57	13	18	..	..
Yarmouth.....	43 50	66 2	65	32.9	+6.3	32	53.6	3	10.4	14	15.7	3.92	-1.24	0.99	15	16	..	..
P. E. ISLAND—																		
Charlottetown.....	46 14	63 10	38	23.6	+4.9	37	48.5	3	-2.0	29	13.1	3.45	+0.04	0.50	16	15	..	1
Charlottetown (Exp. Farm).....	46 14	63 7	75	24.2	—	2	50.0	4	-3.0	10	17.4	3.59	—	0.53	18	13	..	..
Hamilton.....	46 25	63 48	..	26.3	+8.7	16	48.0	4	-1.0	14	13.5	2.14	-0.97	0.52	12	19	..	..
NEWFOUNDLAND—																		
Amour Point.....	51 28	56 51	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Barr.....	47 0	55 10	27	26.0	..	3	48.0	4	6.0	9-30	20.0	6.31	—	1.22	22	9	..	..
Cape Norman.....	51 38	55 52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fogo.....	49 43	54 17	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Point Riche.....	50 42	57 25	35	11.4	—	30	39.0	4	-15.0	14	—	2.20	—	1.50	3	27	..	1
Port aux Basques.....	47 35	59 10	27	22.3	—	4	41.0	..	-1.5	29	12.1	6.48	—	1.00	24	7	..	..
St. George's.....	..	..	..	22.1	—	20	49.6	3	-1.2	28	14.7	4.02	—	0.40	28	3	..	..
St. John's.....	47 34	52 42	125	22.3	-1.9	40	55.0	4	-2.0	10	16.0	3.79	-2.50	0.90	14	17	..	..
LABRADOR—																		
North West River.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
BERMUDA—																		
Prospect.....	32 17	64 46	151	65.0	+2.5	22	74.6	3	55.0	10-11	10.7	2.20	-2.70	0.56	16	15	..	..



## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING JANUARY, 1913.

STATIONS.	RAINFALL.				Date.	SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.		Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....						6.8	7	3.0	6	
Annis (Cunoe Point).....						49.1	21	8.8	7	
Armstrong.....						32.5	17	8.0	7	
Akamina.....										
Beaver Lake.....	5.30	17	8	0.81	1	8.2	6	4.5	6	
Barriere Valley (Louis Cr.).....										
Coquitlam.....	5.86	6	17	3.56	24	47.8	8	11.0	20	
Cariboo Road No 141.....										
Denman's Island.....	2.94	9	16	0.91	7	24.0	6			
Ferguson.....						67.0	15	12.0	1	
Goldstream Lake.....	3.36	5	12	0.98	2	63.0	14	10.0	13	
Hydraulic.....						48.0	15	7.5	30	
Hornby Island.....	3.69	5	19	1.47	1	34.0	7	13.0	12	
Invermere.....						13.4	8	3.0	8	
Jordan River.....	10.49	17	11	1.84	1	3	3	2.0	17-18	
Jordan River (Bear Creek).....	6.25	5	9	1.99	25	104.5	17	17.0	14	
Little Qualicum.....	3.07	7	20	0.92	24	17.0	4	8.0	16	
Lumby.....						31.1	17	9.0	24	
Monte Creek.....	0.03	2	26	0.02	20	12.0	3	5.0	4	
Nas Harbour.....	3.25	15	16	1.80	28	77.0	9	24.0	19	
Rock Creek.....						18.3	19	5.0	23	
Shawnigan Lake.....	2.64	9	8	0.68	23	51.0	14	12.0	7	
Wycliffe.....										
ALBERTA—										
Bardo.....						4.5	4	2.0	29	
Bismark.....						6.2	3	4.5	31	
Bruderheim.....										
Bitters Lake.....						10.0	9	3.0	31	
Brooks.....						11.0	7	6.7	3	
Beaver Mines.....						14.7	8	6.9	3	
Coleman.....						27.0	12	5.0	15	
Cowley.....						23.4	13	7.0	3	
Caldwell.....						22.0	10	6.0	4	
Clareholm.....						10.1	5	6.0	3	
Dorence (Bashaw).....						4.5	4	1.5	31	
Dunstable (Five Lakes).....						20.9	20	5.0	24	
Grassy Lake.....						2.0	1	2.0	3	
Jumping Pound.....						9.2	4	4.0	3	
Loch Sney.....										
Lyndon.....						13.9	7	4.5	31	
Linham.....						12.2	3	6.2	4	
La Pearl.....										
Lethbridge.....						11.0	6	6.5	3	
Macleod.....						13.0	4	6.0	3	
Mayeroff.....						19.3	8	5.5	1-3	
Mountain View.....						23.0	7	5.0	3	
Nately.....										
Nanton.....						5.0	3	3.0	2	
Okotoks.....										
Pekisko.....						11.7	5	6.0	3	
Ponoka.....						9.1	8	5.0	3-29	
Sion.....										
Seven Persons.....						4.2	2	2.0	17	
Tilley.....										
Writing-on-Stone (Combs).....						9.0	3	5.5	3	
Waterton Mills.....						35.0	10	8.0	3	
SASKATCHEWAN—										
Aberfeldy.....										
Gull Lake.....						9.0	5	3.0	22-29	
Gull Lake (Fls. Swift Cr.).....						14.2	8	3.5	31	
Last Mountain.....										
Maple Creek.....						2.5	4	1.0	19	
Meadow Lake.....										
Willow Creek (Battle Cr.).....	0.04	1	22	0.04	25	16.5	8	3.5	2	
MANITOBA—										
Cartwright.....						8.5	9	2.0	30	
Deloraine.....						9.8	13	2.0	27	
Norquay (Swan Lake).....						2.8	5	1.0	29	
Rapid City.....						8.3	13	2.0	17	
Rose Bank.....										
ONTARIO—										
Brantford (Bow Park Farm).....	3.98	14	10	0.73	20	8.0	7	2.5	11	
Charlton.....										
Deer Park.....	2.53	10	14	0.51	20	6.9	7	2.5	11	
Dutton.....	4.23	8	19	1.00	16	6.0	4	2.0	3-12	
Embsdale.....	1.38	3	19	0.81	21	23.0	9	4.5	21-27	
Fort Frances.....						4.3	5	1.2	21	
Georgetown.....	2.85	9	15	0.87	29	11.5	7	3.0	18	
Grantham.....	2.29	7	16	0.63	21	3.5	8	1.0	12	
Grand Valley.....	2.53	8	16	0.75	21	13.5	7	3.0	8	
MacCoe.....	1.68	5	23	0.65	3	6.0	3	3.0	12	
Princeton.....										
Sudenham.....	3.75	6	22	1.00	3	9.0	3	4.0	19	
Strathroy.....	3.76	6	19	0.84	6	12.5	6	4.0	13	
Watford.....	3.64	8	23	0.86	6					
Westport.....	4.65	8	20	1.50	8	8.0	3	3.0	12	
Westminster.....	5.23	9	19	1.03	6	9.0	3	4.0	3	
Wooler.....										
Wesley.....	1.94	7	11	0.57	21	21.5	13	4.0	7	
Wattenwyl.....	0.84	3	19	0.49	17	21.5	9	5.0	20	
Winton.....	1.21	4	19	0.41	31	26.0	8	6.0	21	
QUEBEC—										
Bark Lake (Riviere Desert).....	3.52	2	18	2.92	31	29.9	11	6.9	20	
Kipawa Dam.....										
Lacorne.....										
Perkins Mills.....	0.93	3	22	0.68	3	2.5	6	0.5	6-11	
Quinze Dam.....	0.18	1	20	0.18	17	24.8	10	5.5	6	
Timiskaming.....	0.84	2	12	0.55	17	28.3	10	6.5	9	
NEW BRUNSWICK—										
Point Escomine.....	1.23	4	21	1.02	4	16.7	6	5.3	8	
NOVA SCOTIA—										
Big Mushmush Lake (Mahony).....										
Kentville.....										
Milton.....										
Mushmush River (Mahony).....										
Nappen.....	2.42	7	23	0.80	3	0.5	1	0.5	5	
South Alton.....	4.29	10	15	1.02	19	13.0	6	5.0	8	
White Rock.....	2.77	7	24	0.85	12					

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF JANUARY, 1913.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.		Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND			
				Mean reduced.	Highest.	Lowest.	Range.	Mean	Mean			N.	N.E.	E.	E.	S.E.	S.	S.W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.	
<b>BRITISH COLUMBIA—</b>																									
Atlin	50° 35'	123° 38'	2710	30.06	30.71	28.84	1.87	71	7	10	11	10	2	4	6	2	1	10	17	62	8.9	36	7NW		
Barkerville	53° 2'	121° 35'	4180	29.94	30.48	29.35	1.13	96	7	13	1	0	0	0	0	9	1	0	52	62					
Kamloops	50° 42'	120° 29'	1245	30.68	30.56	29.92	0.64	81	6	12	0	6	8	2	7	7	24	2	6	62	3.5	16	18SW		
Nanaimo	50° 10'	123° 37'	125	29.93	30.51	29.12	1.39	90	8	14	0	0	0	12	0	1	9	4	36	62					
Prince Rupert	54° 18'	120° 18'	170	29.83	30.54	29.04	1.50	90	7	20	0	2	9	9	5	0	0	0	37	62					
Triangle Island	50° 52'	129° 5'	680	29.89	30.56	29.11	1.35	95	9	16	2	11	4	17	2	3	5	2	19	0	62	20.0	44	18E	
o Franquille	50° 41'	120° 29'		28.87	29.40	28.41	0.99					0	0	19	2	3	1	6	0	31					
Vancouver	49° 17'	123° 5'	136	30.04	30.61	29.24	1.37	84	2	15	2	0	23	17	3	1	4	1	11	62	3.5	28			
Victoria	48° 24'	123° 19'	85	30.02	30.65	29.30	1.45	91	7	11	14	5	11	6	5	5	9	7	0	62	8.2	31	25SW		
<b>YUKON—</b>																									
Dawson	64° 4'	139° 20'	1200	30.38	30.99	29.19	1.80	8	8	16	17	1	0	3	10	0	0	1	61	93	3.1	28	2N		
<b>ALBERTA—</b>																									
Banff	51° 10'	115° 34'	4542	30.03	30.62	29.57	1.05	71	5	6	0	3	1	4	0	24	11	1	19	62					
Calgary	51° 2'	114° 2'	3389	30.03	30.41	29.40	1.04	71	2	6	0	3	2	5	2	4	22	15	62	4.8	28	31NW			
Edmonton	53° 33'	113° 30'	2158	30.05	30.56	29.41	1.02	71	5	8	6	8	3	7	7	5	6	17	3	62	5.3	18	1NW		
Medicine Hat	50° 1'	110° 37'	2161	30.01	30.49	29.11	1.28	72	4	15	2	5	0	3	3	30	19	13	8	93					
<b>SASKATCHEWAN—</b>																									
Battleford	52° 41'	108° 20'	1620	30.15	30.79	29.53	1.24	97	5	8	12	2	10	7		7	11	14	29	93					
Moose Jaw	50° 21'	108° 30'	1432	30.01	30.62	29.48	1.14	99	5	11	11	4	8	2	7	0	14	12	14	62			19	4N	
Prince Albert	50° 30'	103° 47'	2115	30.02	30.63	29.53	1.28	79	5	6	1	6	0	6	8	8	11	20	2	62	10.6	29	30NW		
Qu'Appelle	50° 20'	107° 45'	2139	30.03	30.62	29.51	1.11	83				3	1	1	5	9	21	25	22	6	93				
Swift Current	50° 20'	107° 45'	2139	30.03	30.62	29.51	1.11	83				3	1	1	5	9	21	25	22	6	93				
<b>MANITOBA—</b>																									
o Aweme (St. Alban's)	49° 42'	99° 33'	1180	28.74	29.32	28.20	1.12																		
Minnedosa	50° 15'	99° 50'	1098	30.05	30.70	28.13	1.57	97	4	5	6	4	4	7	7	1	5	19	16	2	62				
Le Pas	53° 19'	101° 15'	890	29.01	30.70	29.63	1.07	77	4	4	4	4	4	7	7	1	5	19	16	2	62				
Winnipeg	49° 53'	97° 7'	760	30.08	30.75	29.44	1.31	91	4	6	13	3	0	18	6	8	8	33	4	93	10.8	34	13SE		
<b>ONTARIO—</b>																									
Cochran	49° 2'	81° 0'	946																			7.0	23	23NW	
Guelph	43° 33'	80° 16'	1050																						
Haileybury	47° 28'	79° 39'	187	30.03	30.71	29.07	1.67	92	7	11	9	1	6	9	11	8	6	9	9	62					
Kingston	45° 13'	76° 29'	285	30.05	30.74	28.28	2.46	85	8	17	3	11	3	9	2	14	10	10	0	62	12.0	34	23W		
London	42° 59'	81° 3'	808	30.00	30.65	28.81	1.84	85	7	18	0	16	5	13	2	19	1	37	0	93					
o Lindsay	44° 20'	78° 45'	872	29.12	29.59	27.11	2.48	98	7	12	10	8	6	13	22	19	5	6	4	93					
Ottawa	45° 20'	75° 42'	294	30.03	30.74	28.01	1.66	98	7	12	10	4	4	20	1	2	10	12	8	1	62				
Perry Sound	45° 19'	80° 0'	635	30.00	30.61	28.41	1.77	88	8	15	3	9	1	17	3	14	4	10	1	62					
Port Arthur	48° 27'	82° 1'	644	30.03	30.69	29.21	1.48	85	6	10	8	4	2	0	5	0	30	36	8	93	9.4	25	17SW		
Port Stanley	42° 40'	81° 13'	592	30.07	30.70	28.89	1.81	87	8	19	1	6	10	1	1	16	20	23	2	93					
Southampton	46° 30'	81° 21'	656	30.01	30.62	28.62	1.70	88	9	20	5	7	2	12	13	30	11	9	4	93	11.1	37	20NW		
Stonehill	46° 9'	78° 6'	557	30.02	30.64	29.07	1.57	87	4	3	0	1	7	1	0	0	14	2	37	62	4.0	18	11W		
Toronto	43° 40'	79° 24'	359	30.04	30.71	28.75	1.96	83	7	12	4	5	4	3	1	13	24	8	0	62	15.0	40	10NW		
White River	48° 35'	85° 16'	1252	29.96	30.69	29.25	1.43	6	10	19	1	2	1	6	0	0	10	16	7	62	5.6				
Woodstock	43° 8'	80° 47'	980	29.95	30.61	28.79	1.82	82	8	18											11.2	27	4-15-31 SW-SW		
<b>QUEBEC—</b>																									
Father Point	48° 31'	68° 19'	20	29.97	30.62	28.27	2.35	80	8	14	16	0	6	1	13	25	16	13	3	93	17.8	63	4W		
Montreal	45° 30'	73° 35'	187	30.03	30.41	28.25	2.16	72	6	14	0	11	4	3	15	25	21	14	3	93					
Quebec	46° 48'	71° 13'	965	30.01	30.72	28.45	2.26	80	7	14	0	29	2	0	1	21	37	3	0	93	13.2	54	4NE		
Sherbrooke	45° 32'	72° 5'	623	30.04	30.81	28.34	2.47	77	7	11	2	0	1	18	18	10	26	18	0	93	10.0	48	4SW		
<b>NEW BRUNSWICK—</b>																									
Chatham	47° 3'	65° 29'	21	30.03	30.80	28.52	2.28	78	6	7	3	5	3	2	2	31	36	11	0	93					
Fredericton	45° 17'	66° 36'	164	30.06	30.79	28.58	2.21	85	6	11	3	5	1	10	7	13	20	31	0	93	8.8	36	4W		
St. John	45° 17'	66° 4'	70	30.06	30.79	28.65	2.14	76	6	9	8	5	4	4	14	17	10	27	4	93	16.2	53	4SW		
<b>NOVA SCOTIA—</b>																									
Inifax	44° 39'	63° 36'	88	30.06	30.75	28.87	1.88	88	7	10	5	7	3	1	4	10	14	16	2	62	14.3	47	4W		
Sable Island (MStation)	43° 56'	66° 3'	25	30.07	30.68	27.11	3.57	8	8	11	13	4	0	11	16	16	23	0	93	22.5	61	44SW			
Sydney	46° 10'	60° 10'	35	30.03	30.70	28.86	1.84	81	8	17	2	1	2	1	6	30	9	32	10	93	19.2	62	NE		
o Wolfville	45° 7'	64° 29'	29	30.05	30.75	28.75	2.00	80	2	12	2	2	8	2	12	12	11	10	0	62	11.4	46	5W		
Yarmouth	43° 50'	66° 2'	65	30.10	30.80	28.85	1.95	80	2	10	6	7	4	8	11	9	3	11	3	93	15.0	53	4NW		
<b>P. E. ISLAND</b>																									
Charlottetown	46° 14'	63° 10'	38	30.06	30.76	29.06	1.70	84	6	10	2	3	2	1	16	7	5	1							



FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF JANUARY, 1913

STATION	DIRECTION OF WIND FROM									Total number of Observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	6	6	5	2	3	2	8	4	0	34
Didsbury.....	2	1	1	0	0	4	5	18	0	31
Edmonton.....	6	4	1	7	7	11	8	18	0	62
Hillsgrove.....	0	2	0	9	2	6	1	29	14	63
Loveland.....	4	2	0	9	3	8	10	11	15	62
Macleod.....	4	0	2	0	0	0	30	2	24	62
Paken (Victoria).....	10	5	13	14	2	6	13	24	6	93
Ranfurly (Waitefield).....	10	5	13	14	2	6	13	24	6	93
SASKATCHEWAN—										
Chaplin.....	2	2	0	3	0	2	2	20	0	31
Crescent Lake.....	3	1	0	4	6	3	7	6	1	31
Estevan.....	0	3	3	3	1	6	4	10	1	31
Fort Qu'Appelle.....	0	7	5	14	1	3	24	3	5	62
Grenfell (Brownhill).....	4	5	0	7	6	13	0	19	6	60
Indian Head.....	1	8	4	6	12	10	7	36	9	93
Larchmont (Glenbrian).....	1	4	3	9	0	14	8	22	1	62
Moosomin.....	0	7	6	5	0	13	7	23	1	62
Muenster (St. Peter's Monastery).....	4	0	8	0	0	0	10	9	0	31
Pense (Gatesgarth).....	0	2	1	9	0	1	2	16	0	31
Waseca.....	6	6	4	4	0	1	6	4	0	31
MANITOBA—										
Berens River.....	20	4	5	5	9	2	3	14	0	62
Brandon.....	0	29	2	8	2	13	3	28	8	93
Hillview.....	2	15	10	7	1	8	1	49	0	93
Moose Horn Bay (Athensville).....	17	2	3	4	5	1	4	16	4	56
Morden.....	18	3	1	6	6	3	10	11	4	62
Oak Bank.....	4	0	0	0	6	2	6	10	3	31
Stony Mountain.....	10	8	6	13	22	19	5	6	4	93
ONTARIO—										
Agincourt.....	3	8	4	7	4	35	17	14	1	93
Alton.....	7	0	16	1	11	2	55	1	0	93
Beatrice.....	5	1	2	10	21	9	2	16	27	93
Birnam.....	5	1	2	1	22	6	10	12	3	62
Clinton.....	3	4	3	1	25	6	14	6	0	62
Cottam.....	10	2	7	7	23	4	9	0	0	62
Gravenhurst.....	10	8	6	13	22	19	5	6	4	93
Lindsay.....	11	5	3	2	29	18	16	9	0	93
Orillia.....	10	8	6	13	22	19	5	6	4	93
Owen Sound.....	3	0	0	0	0	6	13	9	0	31
Point Clark.....	6	9	9	0	4	22	31	12	0	93
Port Dover.....	11	0	5	2	15	5	23	1	0	62
Stoney Creek.....	1	0	4	1	0	13	4	7	1	31
Uplands.....	17	2	14	8	23	6	20	3	0	93
Wexford.....	4	1	0	2	38	20	7	20	1	93
QUEBEC—										
Abitibi.....	0	1	8	1	22	8	48	0	5	93
Anticosti, W. Pt.....	2	2	10	1	1	15	33	2	27	93
Anticosti, Heath Point.....	0	1	6	4	21	5	5	44	7	93
Bicquet.....	6	11	0	0	0	0	0	14	0	31
Brome.....	0	41	0	1	0	3	0	37	11	93
Cape Chatte.....	0	1	0	0	0	0	0	0	0	31
Cape Magdalen.....	0	1	0	0	0	0	0	0	0	31
Cape Rouge.....	0	1	0	0	0	0	0	0	0	31
Chicoutimi.....	0	1	0	0	0	0	0	0	0	31
Clarke City.....	0	1	0	0	0	0	0	0	0	31
Manouan Crossing.....	0	1	0	0	0	0	0	0	0	31
White Shore Lake.....	0	1	0	0	0	0	0	0	0	31
NEW BRUNSWICK—										
Dalhousie.....	0	0	8	2	0	0	20	0	0	30
Moncton.....	0	2	0	3	3	3	6	14	0	31
Pt. Lepreaux.....	14	4	1	2	7	20	11	22	0	81
Sussex.....	1	2	0	0	0	11	1	6	10	31
NOVA SCOTIA—										
Kentville.....	1	1	2	2	8	8	7	2	0	31
Parrsboro.....	0	8	0	6	0	11	0	6	0	31
Port Hastings.....	0	8	0	6	0	11	0	6	0	31
Sable Island, E. Pt.....	0	8	0	6	0	11	0	6	0	31
Truro.....	8	1	4	5	20	20	13	20	2	93
Whitehead.....	0	1	0	0	0	0	0	0	0	31

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
JANUARY 1913.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.....						.04	.23	.27	.29	.28	.24	.21	.06					
Salmon Arm.....						.04	.16	.19	.28	.26	.28	.28	.10					
Vancouver.....						.03	.13	.20	.26	.25	.26	.21	.07					
Agassiz.....							.07	.13	.14	.15	.15	.14	.07					
Tranquille.....																		
Summerland.....					.02	.28	.35	.34	.33	.31	.21	.15	.02					
Kamloops.....						T	.19	.32	.47	.40	.30	.20	.01					
Harper's Ranch.....				.01	.09	.22	.27	.31	.33	.38	.21	.01						
Edmonton.....							.08	.15	.32	.28	.27	.15	.02					
Lethbridge.....						.15	.29	.37	.52	.63	.45	.43	.13					
Lacombe.....						.09	.28	.35	.34	.37	.33	.26	.03					
Medicine Hat.....																		
Fort Dunvegan.....																		
Fort Vermilion.....																		
Battleford.....																		
Indian Head.....						.03	.15	.31	.39	.41	.35	.17	.06					
Moosejaw.....						.03	.23	.39	.47	.40	.34	.26	.06					
Scott.....						.08	.29	.40	.42	.47	.47	.43	.15					
Rosthern.....						.02	.18	.41	.37	.40	.43	.42	.16					
Brandon.....						.10	.26	.44	.46	.49	.41	.22						
Winnipeg.....						.03	.26	.38	.44	.50	.45	.40	.24	.01				
Haileybury.....						.17	.30	.38	.37	.33	.23	.20	.11	.01				
Woodstock.....						.09	.08	.12	.22	.19	.19	.19	.09					
Lindsay.....						T	.06	.11	.17	.21	.21	.24	.22	.05				
Barrie.....						.05	.10	.14	.21	.26	.19	.19	.08					
Toronto.....						.09	.19	.21	.23	.29	.34	.23	.11	.03				
Kingston.....						.14	.27	.34	.31	.32	.27	.22	.11	T				
Ottawa.....					.01	.28	.36	.42	.44	.45	.44	.34	.29	.02				
Montreal.....																		
Cap Rouge.....						.05	.18	.18	.22	.32	.30	.24	.05					
Quebec.....						.08	.26	.28	.27	.35	.37	.29	.14					
Ste. Anne de la Pocatiere.....					.07	.29	.37	.38	.39	.37	.33	.16	T					
Sherbrooke.....						.13	.23	.30	.37	.38	.32	.25	.04					
Fredericton.....					.01	.19	.33	.36	.36	.37	.35	.34	.28	.03				
Charlottetown.....					.04	.20	.34	.36	.39	.37	.32	.29	.23	.03				
Nappan.....						.13	.28	.36	.48	.44	.42	.35	.30	.05				
Wolfville.....						.21	.36	.41	.47	.44	.38	.33	.29	.02				

# SUMMARY OF SUNSHINE RECORDS

	Victoria.	Salmon Arm.	Vancouver.	Agaassiz.	Tanquille.	Sumnerland.	Kamloops.	Harper's Ranch.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Duvergan.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Northern.	Brandon.	Winnipeg.	Halleybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kinston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Ste. Anne de la Pointe.	Sherbrooke.	Frederton.	Charlottetown.	Nappan.	Wolville.
Registered duration in hours.....	50	49	43	26	62	61	56	42	92	63	58	67	84	74	74	84	65	36	39	36	54	62	94	48	63	73	62	81	80	87	89						
Percentage of pos- sible duration....	18	19	16	10	23	23	22	17	35	25	22	26	33	29	28	32	24	9	14	13	19	21	33	17	22	26	22	24	29	31	31						
Difference from av- erage.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum percent- age in one day .....	78	73	75	72	76	67	78	54	83	82	75	77	85	74	82	85	80	73	73	76	75	89	75	75	82	75	90	99	86	90							
Date of maximum.....	18	4	4	3	27	8	12	1	6	21	30	30	12	30	31	21	28	22	9	22	22	4	9	25	19	24	14	9	29	20	2						
Number of days completely cloud- ed.....	17	15	18	25	16	14	17	12	7	16	12	10	7	12	12	12	16	18	20	17	16	12	10	18	15	15	13	12	15	14	12						

*Thunder recorded:*

- 1.
- 2.
3. Shawinigan Falls, Brome, D'Israeli.
- 4.
- 5.
- 6.
- 7.
8. New Germany.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
19. New Germany. Halifax, Truro.
20. Paris, Cottam, Brantford, Stoney Creek, Port Stanley, London.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.\*
- 30.
- 31.

*Aurora recorded:*

- 1.
2. Winnipeg III, Waseca, Ranfurly II, Campsie IV, Peace River Crossing.
3. Dunstable, Edmonton IV, Sion IV, Campsie IV.
- 4.
- 5.
- 6.
- 7.
- 8.
9. Aweme IV.
- 10.
- 11.
- 12.
13. Atlin IV.
- 14.
- 15.
16. Winnipeg III.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
29. Waseca.
- 30.
- 31.

## FORECASTS FOR JANUARY 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1186. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	84	100	17	1	88.7
Saskatchewan.....	80	100	14	7	87.5
Manitoba.....	82	94	14	4	86.6
Lake Superior.....	95	55	17	23	87.9
Lower Lake Region.....	110	79	16	4	89.1
Georgian Bay.....	119	88	17	5	87.7
Ottawa Valley.....	96	73	21	2	87.0
Upper St. Lawrence.....	94	73	19	2	87.8
Lower St. Lawrence.....	94	78	12	4	89.4
Gulf.....	107	89	16	2	90.6
Maritime Provinces West.....	117	98	10	9	88.0
Maritime Provinces East.....	117	96	15	5	88.9
Total.....	1186	907	189	44	86.6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
Feb. 22nd, 1913.





DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

FEBRUARY, 1913

No 2.

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

The month was considerably colder than average over the greater part of the Dominion. In British Columbia the mean temperatures ranged from 2° to 11° below average over the mainland and from 1° to 3° over Vancouver Island. In Ontario the negative differences from average ranged from 1° to 8°, the larger differences occurring in the northern districts. In the Abitibi region of Quebec the mean temperature was 9° lower than average and in the Gulf regions from 3° to 6°, but along the middle St. Lawrence from 3° to 4°. In the Maritime Provinces also the month was colder than average by from 3° to 5° except in the most southerly districts of Nova Scotia.

In Alberta and Saskatchewan, on the other hand, the mean temperatures were from 3° to 8° higher than average the greatest differences occurring along the North Saskatchewan River. In Manitoba, however, while some stations reported means from 1° to 3° higher than average, the general difference was negative, ranging from 1° to 4°. The high mean temperature of the month in Alberta and Saskatchewan was mainly due to a period of very mild weather which began on the 12th and lasted until the 24th.

## PRECIPITATION.

In British Columbia precipitation was recorded on from five to eleven days and was in all districts much less than average. In the Western Provinces, where precipitation during the month of February is normally light, little difference from average was noted. In Ontario, however, as well as in Quebec, and the Maritime Provinces, there were noteworthy departures from the average. In the Georgian Bay Counties of Ontario, nearly twice the usual amounts were reported, while in the counties bordering on Lakes St. Clair, Erie and Ontario, and in the counties of the interior of the peninsula, precipitation as largely in defect of normal was recorded. In Quebec and New Brunswick, also, there were large deficiencies, but in Nova Scotia, except locally, they were much smaller.

## BRIGHT SUNSHINE.

In the Western Provinces there was a deficiency of bright sunshine for the month of from twenty to fifty hours, an excess over average of from five to ten hours in Ontario, and deficiencies of from three to ten hours in the Maritime Provinces and Quebec. On Vancouver Island the amount was just normal, but in the interior of British Columbia the excess over normal ranged from ten to forty hours.

## ATMOSPHERIC PRESSURE

The mean atmospheric pressure for February was in excess of the average over British Columbia and also very locally in Alberta, but elsewhere in Canada the value was subnormal. From the values at the Telegraph Reporting Stations, it appears that the excess in British Columbia was about 0.1 of an inch, and the negative departures in other districts were generally more than 0.03 of an inch and reached 0.1 of an inch in Nova Scotia.

## HIGH AREAS.

Seven areas of high pressure were charted, all first appearing either in the far northern or northwestern portions of the continent.

They were all fairly pronounced and attended by much cold weather. The system which was situated in the Yukon Territory on the 2nd was especially energetic, persistent and widespread, and it did not disappear off the continent until after the middle of the month.

## LOW AREAS.

Eleven areas of low pressure were sufficiently defined to admit of their paths being charted while there were one or two other minor depressions which were not considered.

Five areas first appeared in the northwestern portion of the continent, three in the southwestern portion, two near Southern Florida and one near James Bay. Three areas passed to the northward, four over and four to the southward of the Great Lakes. The systems were not as a rule of any marked intensity and as a consequence the gales which were experienced were neither numerous nor severe.

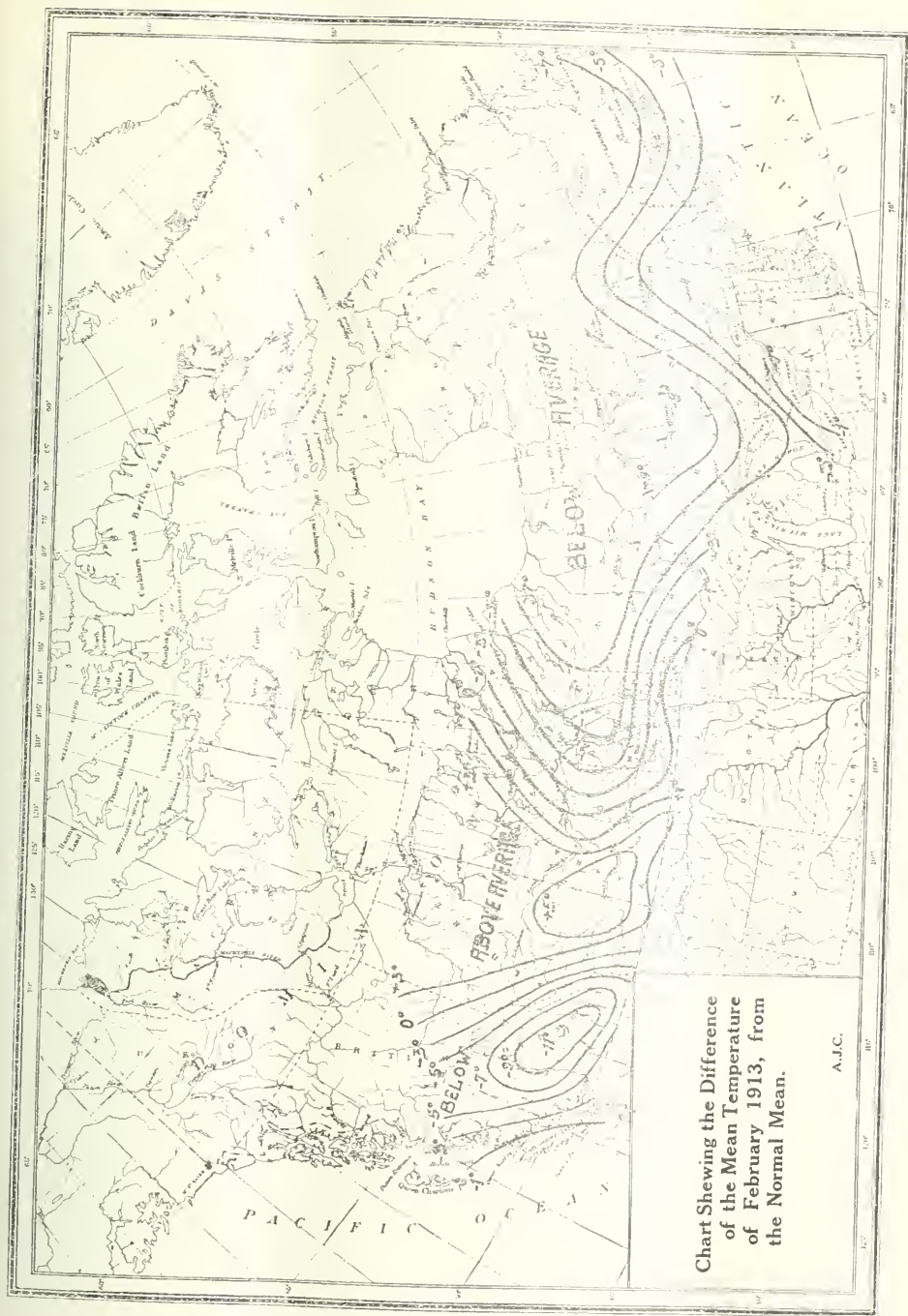


Chart Shewing the Difference  
of the Mean Temperature  
of February 1913, from  
the Normal Mean.

A.J.C.

## WINDS, FEBRUARY, 1913

PROVINCES AND STATIONS	Total Mileage	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL Direction.
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA									
Vancouver	3337	337							
Prince Rupert	4418	335	31			2	2	9	N
Victoria	3628	359	21				4	7	E
Vancouver									
Kamloops									
ALBERTA									
Edmonton	3964	248	20	NW, SE	24-28		2	10	NW
Calgary	4016	320	22	NW	1		6	8	NW
SASKATCHEWAN									
Battleford	3339	435	26	NW	4		9	13	
Prince Albert	4149	300	18	NW	10			9	
Swift Current	8352	590	29	NW	7-11		12	12	
Qu'Appelle									
MANITOBA									
Le Pas	6240	582	32	NW	6	1	2	25	W
Winnipeg	6675	487	32	NW	11	1	7	16	NW
ONTARIO									
Port Arthur	7083	490	38	NW	11	2	9	13	W
White River			20				1	5	N,NW
Cochrane			27						
Harry Sound	6216	418	27				6	22	SW,NW
Southernport									SW
Pelée Island	11239	918	50	SW	23	9	11	9	
Woodstock	8071	614	33	SW	7	1	16	5	SW
Geoph									
Toronto	12420	755	39	W, E	7-22	11	8	6	W
Kinross	7160	509	30	W	2	1	13	9	NE
Stoneyville	2663	234	15	W	21			10	W
Ottawa									
QUEBEC									
Montreal			32	SW		4	19	5	W
Sherbrooke									
Quebec	11844	658	51	NE	15-22	11	12	3	SW,W
Father Point	12432	860	55	W	1	10	12	4	NW,N
Anticosti									
Harrington									
NEW BRUNSWICK									
Pt. Esprit	7317	569	37	W	1		13	8	NW
Fredericton	10324	701	46	NW	1	10	10	8	NW,N
St John	15017	918	59	NW	1	19	7	1	NW
Pt Lepreaux									
NOVA SCOTIA									
Yarmouth	10920	674	51	NW	1	4	15	12	NW
Wolfville	8418	663	38	W, SW	1	5	10	10	W
Halifax	9546	695	41	NE	19	9	12	5	NW
Sable Island				NE					
Flat Point	12715	944	50	NE	18	11	12	2	NW
PRINCE EDWARD ISLAND									
Charlottetown	5486	651	34	NE	19	2	3	12	NW,NE

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on February 7th, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—759 mm.

Temperature = -12.00° C.

Direction of flight at Beginning—East.

Fell—275 km. distant S. 85° E.

Maximum Height—10.6 km.

Minimum Temperature—-52.0° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	759	12.0	
0.5	738	13.5	-16.5
1.0	690	-16.5	-19.5
1.5	643	-21.0	-22.5
2.0	601	-21.0	-25.5
2.15	590	-21.0	-26.0
2.4	570	-21.0	-23.0
2.5	561	-21.5	-23.5
3.0	524	-24.0	-25.0
3.5	489	-25.5	-27.0
4.0	457	-29.0	-30.0
4.5	425	-33.0	-34.5
5.0	394	-38.0	-38.5
5.5	368	-40.0	
6.0	341	-43.0	
6.1	337	-43.5	
6.5	316	-43.5	
7.0	293	-43.5	
7.5	272	-46.0	
8.0	251	-48.5	
8.5	233	-51.0	
9.0	216	-51.0	
9.5	200	-52.0	
10.0	185	-51.5	
10.6	169	-51.0	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1913.

\*Stations not furnished with registering thermometers

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.					PRECIPITATION.										
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Harvest fall 12 month.	Days with 40 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.
BRITISH COLUMBIA.																			
S. Vancouver Island																			
Alberni (Heaver Creek)	49 15	124 49	300	37.0	-0.5	17	58.0	20	16.0	8	20.6	2.69	-6.14	1.36	8	20	..	..	..
Clayoquot .....	49 11	125 55	27	40.1	-0.6	13	50.0	20-26	25.0	6-7	22.2	9.70	-3.25	4.50	8	20	..	..	..
Choochoo .....	48 25	123 42	170	36.9	..	7	52.0	16	18.5	7-26	17.2	5.97	-1.57	2.45	8	20	..	..	..
Nanaimo .....	48 25	123 42	170	36.9	..	7	52.0	16	18.5	8	15.6	1.55	..	0.79	8	20	..	..	..
Nanaimo Bay .....	49 10	123 37	125	37.4	-0.2	12	56.0	25	18.1	6	14.0	1.77	2.87	0.18	8	20	..	..	3
Nanaimo Bay .....	49 17	124 12	130	36.4	..	1	49.0	21	22.0	6	14.1	1.27	..	1.10	5	23	..	..	..
Salt Spring Island .....	48 50	123 20	30	36.4	..	4	50.0	15	23.0	6	11.0	1.94	..	0.91	8	20	..	..	..
Sooke .....	48 41	123 44	25	37.5	..	3	51.0	23	25.0	25-28	15.3	3.29	..	1.03	6	22	..	..	..
Victoria .....	48 24	123 19	85	38.4	-3.2	19	55.0	16	27.0	25	11.2	1.91	-1.66	0.43	8	20	..	..	4
N. Vancouver Island																			
Holberg .....	50 39	128 18	..	38.5	..	4	47.8	20	29.1	8	8.9	5.88	..	2.61	12	16	..	..	..
Swanson Bay .....	50 37	126 53	..	34.1	..	5	44.0	20-22	15.0	3	9.4	10.22	..	2.84	9	19	..	..	..
Triangle Island .....	50 52	129 5	680	37.5	..	6	45.5	15	27.0	4	9.9	3.91	..	1.15	9	19	..	..	10
Quatsino .....	50 32	127 40	..	38.7	+0.7	17	49.0	13-16	27.0	4-24	11.7	5.31	-7.54	2.70	11	17	..	..	..
Lower Fraser River																			
Agassiz .....	49 14	121 31	52	34.9	-2.9	21	48.0	22	20.0	4	11.9	5.12	-1.59	1.64	6	22	..	..	..
Chilliwack .....	49 10	121 57	21	33.5	-4.0	10	48.0	18	19.0	5	12.6	6.46	..	2.94	7	21	..	..	5
Hope .....	49 23	121 25	500	29.8	..	3	48.0	20	9.0	6-7	17.2	3.50	..	1.33	6	22	..	..	..
Ladner .....	49 05	123 4	35.8	..	1	13	51.0	15-17	20.0	5-6	12.5	1.89	-2.63	0.55	5	23	..	..	..
New Westminster .....	49 13	122 54	330	34.7	-3.4	26	46.8	18	18.7	6	12.5	5.39	-1.57	1.83	8	20	..	..	3
Pemberton Hatchery ..	49 12	122 2	69	34.6	-2.9	21	49.0	18-21	18.0	8	14.4	7.09	-0.96	2.34	6	22	..	..	..
Pemberton Hatchery ..	50 20	122 33	27.0	..	5	43.0	18	10.0	5-10	13.5	2.07	..	..	1.13	4	24	..	..	..
Ruskin (Stave Falls) ..	49 16	122 23	125	30.8	..	4	44.0	21	12.0	6	13.3	8.25	..	3.60	5	23	..	..	..
Steveston (Garry Point) ..	49 21	123 17	136	30.3	-8.0	18	50.0	17	21.0	6-7	11.7	2.42	..	1.66	15	6	..	..	..
Vancouver .....	49 17	123 5	136	36.0	-2.4	12	47.9	16	20.7	6	11.3	4.28	-2.50	1.39	10	18	..	..	2
Upper Fraser River																			
Babine Lake .....	55 38	126 26	..	11.8	..	5	43.0	14	-24.0	5	24.2	1.58	..	0.45	7	21	..	..	..
Barkerville .....	53 02	121 35	4180	14.7	-4.8	23	39.0	13	-24.0	4	16.9	1.60	-1.04	0.80	6	22	..	..	..
Chilcotin (Big Creek) ..	51 40	123 0	3100	16.0	-0.3	10	49.0	13	-20.0	7	25.2	1.40	+0.67	0.40	7	21	..	..	..
Fort George .....	..	..	..	12.4	..	1	44.0	15-20	-35.0	7	24.6	2.78	..	1.15	7	21	..	..	..
Fort St. James (Stuarts Lake) .....	54 28	124 12	2280	11.5	-1.9	18	43.5	14-16	-27.5	5	23.4	0.72	-1.72	0.24	7	21	..	..	..
Hydralle .....	..	..	..	16.0	..	1	41.0	13-15	-33.0	5	19.9	0.88	..	0.40	5	23	..	..	..
Quesnelle .....	52 50	122 30	1700	15.5	-3.8	16	44.0	16	-27.0	6	22.2	1.03	-0.08	0.30	5	23	..	..	..
Okanagan Valley																			
Hedley .....	49 35	120 10	1771	21.3	..	9	42.0	1-17	-8.0	5-7	18.5	0.40	..	0.33	3	25	..	..	..
Hedley (Nickel Plate) ..	..	..	..	15.4	..	10	42.0	16	-15.0	6	18.7	0.60	..	0.20	3	25	..	..	..
Keremeos .....	..	..	..	23.3	..	5	44.0	17-28	-7.0	11	14.3	0.27	..	0.25	2	26	..	..	..
Kelowna (Okanagan Mission) ..	49 15	119 29	1200	18.6	-7.0	13	42.0	17	-16.0	6	16.5	1.15	+0.07	0.42	4	24	..	..	..
Penticton .....	49 29	119 35	1230	23.9	..	4	45.0	16-17	-7.0	9-11	14.8	0.42	..	0.27	5	23	..	..	..
Princeton .....	49 29	120 29	1650	16.1	-7.1	18	42.0	15-17	-27.0	6	25.6	0.45	-0.57	0.22	3	25	..	..	..
Richlands .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Summerland .....	49 36	119 40	1100	21.0	..	6	43.0	16	-10.0	7	14.3	0.50	..	0.50	1	27	..	..	..
Vernon (Coldstream Ranch) ..	50 14	119 15	1582	15.4	-10.5	20	40.0	16	-22.0	17	18.2	1.02	-0.11	0.35	5	23	..	..	..
West Kootenay																			
Crawford Bay .....	49 45	116 45	2000	21.6	..	3	41.0	17-18	-2.0	5	16.1	2.41	..	0.40	6	22	..	..	..
Croston .....	..	..	..	18.2	..	1	42.0	17	-12.0	4-5	20.9	0.42	..	0.39	3	25	..	..	..
Grand Forks .....	49 2	118 27	..	16.5	..	2	42.0	17	-15.0	6	18.3	0.13	..	0.11	3	25	..	..	..
Greenwood .....	49 5	118 49	..	15.4	..	1	41.0	18	-19.0	5	25.5	..	..	..	..	..	..	..	..
Howser .....	..	..	..	18.0	..	1	42.0	20	-13.0	6-8	18.7	0.08	..	0.25	10	18	..	..	..
Kaslo .....	49 52	117 0	1752	20.6	..	4	41.0	17	-5.0	5-6	15.0	1.65	..	0.20	..	..	..	..	..
Nakusp .....	..	..	..	19.1	..	1	39.0	15	-6.0	8-9	15.2	1.85	..	0.57	6	22	..	..	1
Needles .....	..	..	..	25.5	..	4	53.0	4	-11.0	7-8	28.0	0.27	..	0.10	4	24	..	..	..
Nelson .....	49 29	117 21	1760	23.2	-5.5	12	43.0	18	0.0	7-8	15.8	0.80	-1.06	0.27	5	23	..	..	..
Rossland .....	49 5	117 48	3440	19.9	..	9	37.5	16	0.5	8	11.6	0.26	..	0.13	4	24	..	..	..
East Kootenay																			
Akamina .....	49 10	114 20	4150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cranbrook .....	49 30	115 50	..	13.2	..	9	49.0	13	-24.0	5	24.8	0.04	..	0.04	1	27	..	..	..
Tolbore Plains (Elko) .....	49 1	115 5	2684	18.2	-5.9	18	54.1	16	-17.6	5	17.1	0.21	-1.04	0.11	3	25	..	..	..
Wilmer .....	60 34	116 14	..	14.8	..	3	44.0	16	-18.0	5	18.6	0.35	..	0.25	3	25	..	..	..
Thompson River																			
Ashcroft .....	..	..	..	19.8	..	1	44.0	17	-10.0	..	..	..	..	0.24	4	24	..	..	..
Enderby .....	50 32	119 7	1180	16.5	-6.1	12	47.0	18	-27.0	4-6	24.1	1.38	-0.35	0.45	5	23	..	..	..
Harper's Ranch .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kamloops .....	50 41	120 29	1245	17.3	-10.5	21	42.0	18	-18.8	6	17.0	1.01	+0.20	0.55	5	24	..	..	..
Nicola Lake .....	50 9	120 39	2120	20.7	-3.1	18	50.0	16	-21.0	5	16.6	1.46	+0.70	1.16	2	26	..	..	..
Pemberton Meadows .....	..	..	..	23.6	..	1	44.0	18-21	-10.0	5-6	21.9	1.94	..	1.06	5	23	..	..	..
Salmon Arm .....	50 42	119 35	1152	16.8	..	11	41.0	17	-18.0	6	18.4	1.13	..	0.60	4	24	..	..	..
Salmon Arm (Exp. Farm) ..	..	..	..	15.5	..	2	41.0	17-18	-19.0	5	22.1	0.80	..	0.50	3	25	..	..	..
Tappen .....	..	..	..	22.2	..	1	47.0	17	-16.0	6	20.1	0.91	..	0.55	6	22	..	..	..
Tranquille .....	50 41	120 29	..	16.2	..	5	46.0	15	-24.0	6	18.7	1.45	..	0.36	6	22	..	..	..
North Columbia River																			
Gleisner .....	51 14	117 29	4972	11.7	-6.3	12	55.0	17	-13.0	5	13.4	5.25	-2.07	1.60	7	21	..	..	..
Gold River .....	51 0	118 6	1476	12.0	-4.3	10	39.0	15-16	-32.0	6	24.2	0.60	..	0.00	6	24	..	..	..
Invermere .....	..	..	..	11.3	..	1	42.0	15	-30.0	6	25.4	0.08	..	0.05	2	26	..	..	..
Revelstoke .....	51 16	116 55	2550	19.6	-3.3	13	41.0	17	-14.0	8	19.4	2.91	-1.77	1.00	10	18	..	..	..







## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1913.

\* Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.				Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.				
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.									
SASKATCHEWAN—																							
Qu'Appelle River																							
Brownhill (Groulx P.O.)	50 23	102 53	1957	0.5	— 1.6	13	38.0	16	—32.6	3-25	22.7	1.10	+0.78	0.30	5	23							
Brownlee	50 45	106 0																					
Buehnan	50 50	102 25	1858	— 3.1	+ 3.6	15	36.7	17	—39.9	1 24.4	1.79	+1.28	1.00	8	20								
Crescent Lake	49 12	103 4	1858	1.9	— 3.3	9	38.0	16	—26.0	2 3 16.4													
Estevan	50 50	102 25		— 3.7	— 1.9	1	42.9	16	—39.9	26 24.9	0.67	—	0.23	6	22								
Fort Qu'Appelle	51 5	103 24		— 3.7	— 1.9	4	36.0	17	—35.0	26 23.7	1.00	—	0.40	4	24								
Hubbard (Drumague)	51 5	103 24																					
Humboldt	52 12	105 9		1.1	— 2	3	39.0	16	—33.0	25 19.2	1.10	—	0.60	3	25								
Imperial	51 22	103 23		— 1.5	+ 0.3	23	40.0	16	—35.0	26 25.4	1.30	+0.88	0.70	5	23								
Indian Head	50 28	103 40	1924	— 0.4	— 0.4	3	30.0	16-22	—38.0	11 20.3	1.60	—	0.60	6	22								
Kamsack	49 43	102 2	2064																				
Manot	50 21	105 35	1759	9.2	+ 4.6	18	43.0	15-17	—24.0	3 21.0	0.40	—0.44	0.15	8	20								
Moosomin	50 0	101 37	1884																				
Muenster (St. Peter's Mon.)	52 0	105 0	1870	— 1.1	+ 2.2	8	33.0	16	—40.0	26 22.9	0.69	—0.03	0.60	1	27								
Pilger	52 25	105 9		— 1.5	— 1.5	3	34.0	16	—47.0	26 23.1	1.47	—	1.00	3	25								
Pense (Gatesgarth)	50 20	105 0	1879	5.6	+ 2.3	15	41.0	16	—30.0	28 19.6	0.20	—0.14	0.68	8	20								
Qu'Appelle	50 30	103 47	2115	3.7	+ 2.4	28	41.0	16	—29.0	26 18.7	1.12	+0.19	0.40	8	20	1							
Qu'Appelle	52 4	104 14	1600																				
Regina	50 27	104 37	1885	4.0	+ 4.7	27	38.0	16	—34.0	26 20.3	0.11	—0.21	0.63	6	22								
Strasbourg	51 5	101 37																					
Yarbo (Fairfield)	50 39	102 4		1.7	— 1.7	6	33.0	17	—38.0	12 21.5													
Yellow Grass	49 49	104 9		3.0	— 3.0	2	38.0	15-16	—41.0	13 21.9													
Yorkton	51 11	102 29		1.9	— 1.9	4	32.0	14-27	—39.0	12 25.6													
S. Saskatchewan River																							
Chaplin	50 26	106 39	2202	6.3	+ 5.0	27	42.0	15-16	—31.0	2 20.8	0.66	—0.41	0.02	4	24								
East End (Divide)	49 51	108 49		9.8	— 9.8	1	43.2	17	—24.2	4 16.4	0.38	—	0.07	2	26								
Kelvinhurst (Nashlyn)	51 46	108 10		9.0	— 9.0	3	48.5	17	—27.0	3-4 20.8	0.10	—	0.10	2	26								
Larchmont (Glenfry)	49 21	109 29		8.6	— 8.6	1	49.0	15	—29.0	4 26.8	0.05	—	0.05	1	27								
Oliver	49 54	107 27		3.7	— 3.7	3	38.5	16	—39.0	3 21.1	0.45	—	0.35	3	25								
Rathmullen	51 20	108 57		10.6	+ 1.9	27	46.0	16	—27.0	3 17.5	0.31	—0.34	0.08	9	19	2							
Swift Current	50 20	107 45	2139																				
N. Saskatchewan River																							
Battleford	52 41	108 20	1620	8.6	+ 8.0	29	46.0	15	—32.0	26 20.2	0.20	—0.23	0.10	2	26								
Lloydminster	53 18	110 0		6.0	— 6.0	2	41.5	15	—34.0	3 19.0	0.55	—	0.30	4	24								
Luseland	52 5	109 34		6.2	+ 5.5	2	41.5	15	—34.0	3 19.0	0.55	—	0.30	4	24								
Onion Lake	52 52	109 59		6.2	+ 5.5	2	41.5	15	—34.0	3 19.0	0.55	—	0.30	4	24								
Prince (Meota)	51 0	108 20	1700	1.3	— 1.3	7	43.0	16	—45.0	26 21.9													
St. Walburg	51 59	109 30		6.4	— 6.4	1	41.0	15	—35.0	26 10.8	0.42	—	0.20	7	21								
Scott (Ex. Farm)	51 59	109 30		3.3	— 3.3	2	38.8	15	—35.4	3 20.9	0.75	—	0.20	4	24								
Waseca	53 0	109 29		5.0	— 5.0	6	39.0	15	—33.0	3 18.3	0.60	—	0.20	7	21	1							
The Saskatchewan Forks																							
Chagnoss (Star City)	52 32	104 13																					
Duck Lake	52 54	106 20																					
Melfort	52 47	104 30		0.2	+ 5.5	4	38.0	12	—32.0	26 24.1	0.15	—0.26	0.05	3	25	1							
Prince Albert	52 10	106 0	1832	2.2	+ 2.6	28	40.0	13-16	—38.5	1 22.4	0.80	+0.07	0.30	4	24								
Rosthern	52 40	106 20	1657	0.6	— 0.6	3	35.0	17	—34.0	26 19.3	0.50	—	0.25	3	25								
Saskatoon	52 15	106 30	1571	1.8	+ 2.7	13	38.5	17	—35.0	26 20.0	1.60	+0.58	0.45	5	23								
Lower Saskatchewan River																							
Cumberland House	53 56	102 16																					
Lost River	53 17	104 21																					
MANITOBA—																							
Qu'Appelle and Assiniboine Rivers																							
Avenue (St. Albans)	49 42	99 35	1180	— 0.6	— 0.4	29	33.0	13	—33.0	26 22.0	0.90	+0.09	0.35	11	17	3							
Boisvoisin	50 25	101 1	1703																				
Brandon	49 51	99 57	1176	— 2.6	— 2.6	25	32.0	13	—38.6	26 21.9	0.60	—0.26	0.30	3	25								
Carberry	49 52	99 20	1258																				
Carman	49 51	98 0	872																				
Cypress River	49 33	99 3	1232																				
Hillview	49 55	100 33	1400	0.5	+ 2.8	27	31.0	12	—38.0	11 20.3	0.90	+0.03	0.40	3	25								
Immedios	50 15	99 50	1699	— 1.4	— 2.0	29	31.5	13	—34.4	12-26 19.4	0.88	+0.31	0.30	7	21								
Nimette	49 24	99 38	1363	1.6	— 1.6	3	31.0	13	—31.0	26 22.2													
Ninra	49 14	99 51	1649	0.1	— 0.1	3	34.0	14-16	—27.0	25 20.7													
Pierston	49 11	101 5	1531																				
Pipestone	49 34	100 58	1400																				
Portage la Prairie	49 57	98 17		— 2.8	— 4.5	24	31.0	14	—33.0	25-26 21.7	1.10	+0.45	0.60	4	24								
Portage la Prairie (2)	49 56	98 17																					
Russell	50 59	101 20																					
Souris	50 59	101 20		7.5	— 7.5	19	33.0	15	—27.0	3 24.2	1.01	—	0.72	3	25								
Trelewan	49 36	98 40	1212	0.9	+ 1.0	18	34.0	13	—27.0	+26 20.9	0.85	—0.03	0.23	12	16								
Verden	49 51	100 55	1444																				
The Red River																							
Almaspung	49 14	99 20		0.9	— 1.7	11	33.0	13	—28.0	+26 18.4	1.10	+0.29	0.70	4	24								
Morden	49 11	98 6	978	1.6	— 1.6	9	29.0	17	—27.0	26 19.3	1.40	—	0.80	3	25								
Oak Bank	49 57	96 42	800	— 1.6	+ 0.7	16	28.3	18	—32.5	27 18.6	1.00	—1.46	0.50	4	24								
Stony Mountain	50 40	97 14	803	2.7	— 2.7	32	28.0	19	—39.0	26 25.3	0.95	+0.03	0.60	4	24								
Winnipeg	49 53	97 7	760	— 0.9	— 0.2	39	28.3	18	—27.8	26 18.9	0.61	—0.08	0.18	14	14								

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\* Stations not furnished with Registering Thermometers.

STATION	GENERAL DATA										PRECIPITATION							
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yrs. observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Annual.	Difference from average.	Heavyest fall in month.	Days with 40 or more No. of fair days.	No. of autumns.	No. of thundersdays.	No. of fogs.
MANITOBA—Continued																		
Dauphin Lake and River																		
Dauphin .....	51° 8'	100° 2'	157	2.6	—	8	7.0	14	—	2	—	4	—	1.0	—	—	—	—
Moose Horn Bay (Atkinsville) .....	51° 15'	99° 43'	716	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Berens River .....	52° 18'	97° 23'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lake Winnipegosis																		
Le Pas .....	50° 6'	101° 15'	1112	3.2	—	6	13.8	22	—	3	—	—	—	0.10	—	—	—	—
Swan River .....	51° 49'	101° 15'	900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ONTARIO—																		
The Lake Superior Districts																		
Rainy River																		
Kenora .....	49° 48'	93° 32'	1102	-1.2	-7.2	13	2.00	17	—	1	—	—	—	0.21	0.50	3	2	—
Thunder Bay																		
Kakabeka Falls .....	48° 29'	84° 26'	912	-1.8	—	5	28	1	—	4	—	—	—	0.50	—	5	—	—
Port Arthur .....	46° 27'	89° 12'	644	3.0	-4.1	12	—	—	—	4	—	—	—	—	—	—	—	—
Schreiber .....	48° 58'	82° 15'	533	0.1	-4.6	15	—	—	—	—	—	—	—	—	—	—	—	—
Algoma																		
Bruce Mines .....	46° 18'	83° 55'	595	-7.8	-5.8	15	—	19-20	—	—	—	—	—	—	—	—	—	—
Copper Cliff .....	46° 29'	80° 59'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Porcupine .....	45° 40'	82° 14'	—	-6.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Providence Bay .....	48° 35'	85° 16'	1252	12.3	—	—	—	19-20	—	—	—	—	—	0.40	—	—	—	—
Timmins (Sandy Falls) .....	—	—	—	-6.1	—	—	—	25-28	—	—	—	—	—	1.00	—	—	—	—
White River .....	—	—	—	-5.7	-6.9	24	—	—	—	—	—	—	—	0.50	—	—	—	—
Nipissing																		
Cochrane .....	49° 2'	81° 0'	946	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haileybury .....	47° 29'	79° 39'	687	—	-1.1	-7.6	18	28.8	—	—	—	—	—	0.56	0.65	14	13	—
Montreal River .....	47° 8'	79° 29'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Upper Ottawa River																		
Rutherford (Lake Talon) .....	46° 15'	74° 48'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stoneliff (Rockcliffe) .....	46° 9'	78° 6'	557	5.8	-2.8	15	—	—	—	—	—	—	—	—	—	—	—	—
Upper St. Lawrence and Lower Ottawa Rivers																		
Almonte .....	45° 12'	76° 13'	390	10.1	—	1	4.2	—	—	—	—	—	—	—	—	—	—	—
Bloomfield .....	43° 59'	72° 21'	260	16.5	-0.4	17	4.5	—	—	—	—	—	—	—	—	—	—	—
Hamlet .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kinston .....	44° 13'	76° 29'	285	15.2	-2.2	20	38.8	—	—	—	—	—	—	—	—	—	—	—
Montague .....	44° 56'	75° 57'	—	13.5	—	3	47.3	—	—	—	—	—	—	—	—	—	—	—
North Gower .....	45° 8'	75° 43'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ottawa .....	45° 26'	75° 42'	294	11.0	-2.6	20	27.0	1	—	18	—	—	—	0.52	0.74	10	18	—
Renfrew .....	45° 26'	76° 39'	416	7.7	-4.3	25	27.0	2	—	29	—	—	—	0.40	0.60	11	17	—
Georgian Bay Counties																		
Barrie .....	44° 23'	79° 41'	839	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Beaumaris .....	45° 8'	79° 20'	890	10.0	-4.1	37	40.0	2	—	20	—	—	—	0.60	0.88	14	14	—
Coldwater .....	44° 38'	79° 40'	660	12.5	-1.9	24	27.0	21	—	31	—	—	—	0.28	0.98	13	15	—
Collingwood .....	44° 31'	81° 2'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gravenhurst .....	44° 54'	79° 20'	—	10.2	-5.4	42	43.0	2	—	27	—	—	—	0.55	0.92	1.50	14	—
Huntsville .....	45° 19'	79° 8'	—	10.7	—	7	50.0	20	—	37	—	—	—	—	—	—	—	—
Midland .....	44° 41'	79° 53'	750	17.6	—	5	50.0	12-19	—	21	—	—	—	0.20	—	6	22	—
Markdale .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Orillia .....	44° 37'	79° 24'	775	11.6	-4.1	21	14	20	—	22	—	—	—	0.72	0.60	8	23	—
Owen Sound .....	44° 31'	80° 55'	697	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Perry Sound .....	45° 19'	80° 0'	635	10.8	-3.1	37	43.0	—	—	—	—	—	—	—	—	—	—	—
Rosville .....	45° 15'	87° 57'	1058	8.0	—	6	39.0	—	—	—	—	—	—	-2.37	0.96	14	14	—
Shelburne .....	44° 5	80° 47'	—	13.6	—	4	41.5	—	—	19	—	—	—	—	0.65	1	18	—
Uplands .....	45° 48'	79° 25'	—	7.9	-5.4	26	38.1	30	—	32	—	—	—	0.10	1.50	8	20	—
Lake Huron Counties																		
Birnham .....	43° 2	81° 55'	800	19.7	-0.6	31	51.1	14	—	1	—	—	—	-1.23	0.70	8	20	—
Clinton .....	43° 32'	82° 37'	—	17.6	1.0	10	45.0	—	—	—	—	—	—	-0.62	0.76	13	15	—
Georgetown .....	43° 38'	81° 43'	—	18.1	3.7	22	49.0	—	—	—	—	—	—	—	—	—	—	—
Lacknow .....	43° 56'	81° 20'	908	15.9	-2.9	27	45.0	—	—	—	—	—	—	—	0.38	5	23	—
*North Bruce .....	44° 23'	81° 25'	—	16.1	-3.8	25	45.0	14	—	10	—	—	—	-0.53	0.34	16	12	—
*Point Clark .....	43° 5	81° 44'	595	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Sarnia .....	42° 59'	82° 24'	580	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Southampton .....	44° 30'	81° 21'	656	17.0	-2.2	36	46.8	2	—	14	—	—	—	—	—	—	—	—
Lakes St. Clair & Erie, Niagara Peninsula																		
Chatham .....	42° 22'	82° 12'	595	22.1	-1.1	27	57.0	19	—	20	—	—	—	-1.10	0.42	8	2	—
Cottam .....	42° 7'	82° 45'	806	20.1	-4.4	25	50.0	19	—	10	—	—	—	-2.47	0.50	4	24	—
Grimby .....	43° 13'	77° 36'	—	22.1	—	4	55.0	20	—	1	—	—	—	-2.18	—	—	—	—
Presley Island .....	41° 53'	82° 35'	585	20.6	-5.1	44	42.0	—	—	—	—	—	—	—	—	—	—	—
Port Burwell .....	42° 39'	80° 55'	592	19.9	-9	40	45.0	19	—	24	—	—	—	—	—	—	—	—
Port Dover .....	42° 27'	80° 18'	635	18.6	-4.0	38	43.0	20	—	1	—	—	—	-1.47	0.41	12	15	—
Port Stanley .....	42° 40'	81° 12'	512	21.1	-4.3	38	45.0	16	—	14	—	—	—	—	—	—	—	—
St. Catharines .....	43° 9'	79° 17'	347	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stoney Creek .....	43° 13'	79° 45'	292	21.6	-2.6	28	56.0	20	—	4	—	—	—	2.12	0.43	5	22	—
Wallaceburg .....	42° 35'	82° 24'	—	21.7	—	7	52.0	19	—	10	—	—	—	—	0.13	10	18	—
Welland .....	42° 59'	79° 17'	577	21.4	-1.6	26	52.0	20	—	10	—	—	—	3.36	0.40	5	23	—
Windsor Centre .....	42° 20'	83° 4	425	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION			Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of logs		
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.						Difference from Average.	Heaviest fall in month.
ONTARIO—Continued—																			
West-Central Counties																			
Alton.....	43 51	80 5	1259	19 1	-1 4	23	53 0	20 -1 0	9 16 8	0 89	-0 63	0 34	6 22	..	..	..	..		
Brantford.....	43 10	80 21	730	15 2	-3 2	16	47 0	19-20 -11 0	10 14 6	1 30	-1 11	0 52	9 19	..	..	1	..		
Elora.....	43 41	80 24	1274	18 4	-0 4	25	44 0	19-20 -5 0	10 15 2	1 48	-	0 53	12 16	..	..	..	..		
Guelph.....	43 33	80 16	1050	16 6	+2 3	13	43 0	18 -6 0	22 15 9	1 48	+2 11	0 40	5 23	..	..	..	..		
Listowel.....	42 59	81 13	808	19 9	-1 0	26	53 0	19 -2 0	5 16 4	4 08	+0 01	0 92	15 13	..	..	1	..		
London.....	43 12	80 23	840	21 3	-0 8	24	52 0	19 -4 0	10 15 9	1 09	-1 41	0 35	9 19	..	..	1	..		
Stratford.....	43 23	81 0	1191	18 6	-4 9	39	59 0	20 -3 8	10 16 3	0 92	-1 34	0 42	7 21	..	..	1	..		
Woodstock.....	43 8	80 47	980	15 6	-	..	..	..	..	..	..	..	..	..	..	..	..		
Lake Ontario Counties																			
Agincourt.....	43 47	79 16	500	17 7	+1 6	18	53 0	20 -4 8	10 14 6	0 78	-2 45	0 34	10 18	..	..	..	..		
Aurora.....	44 45	78 28	920	10 0	-3 9	25	42 0	20 -31 0	10 26 0	1 25	-0 74	0 40	8 20	..	..	..	..		
Hamilton.....	43 16	79 54	509	17 1	-	..	..	..	..	..	..	..	..	..	..	..	..		
Oshawa.....	43 53	78 52	331	17 1	-	9	50 0	21 -7 0	10-11 15 0	..	..	..	..	..	..	..	..		
Toronto.....	43 40	79 21	350	20 4	-0 7	73	53 2	20 -1 4	10 15 3	1 14	+1 18	0 53	12 16	..	..	1	..		
Toronto Is (Lakeside Home)	43 49	79 24	..	21 0	-	8	59 0	20 -2 0	10 14 9	..	..	..	..	..	..	..	..		
Uxbridge.....	44 5	79 8	886	13 6	-	9	44 0	20 -4 0	10 13 1	1 26	-	0 30	8 20	..	..	..	..		
Wexford.....	44 44	79 17	555	15 8	-	1	49 0	20 -9 0	24 15 1	0 50	-	0 20	3 25	..	..	..	..		
East-Central Counties																			
Bancroft.....	45 1	77 50	..	7 9	-3 6	22	45 0	20 -27 0	9 20 2	..	..	..	..	..	..	..	..		
Haliburton.....	45 1	8 28	1050	10 0	-3 9	25	42 0	20 -31 0	10 26 0	..	..	..	..	..	..	..	..		
Kinmount.....	44 45	78 28	920	7 0	-3 8	13	46 0	20 -38 0	9 26 7	2 95	+0 78	0 59	13 15	..	..	..	..		
Lakefield.....	44 25	78 15	850	11 1	-	2	41 0	20 -11 4	10 16 7	1 02	-1 90	0 68	7 21	..	..	..	..		
Landsey.....	44 20	78 45	822	14 1	-	1	33 42 5	20 -16 5	10 17 8	..	..	..	..	..	..	..	..		
Madoc.....	44 30	77 29	575	11 8	-	9	48 0	20 -15 0	10 15 0	1 33	-	0 40	12 16	..	..	..	..		
Norwood.....	44 27	73 59	..	12 6	-	1	42 0	20 -15 0	9 18 7	0 90	-	0 25	8 20	..	..	..	..		
Peterboro.....	44 17	76 19	722	13 6	+0 3	44	47 0	20 -17 0	10 15 0	0 70	-1 90	0 30	5 23	..	..	..	..		
Ursa.....	44 54	78 18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
QUEBEC—																			
Middle St. Lawrence																			
Brome.....	45 10	72 36	678	10 6	-2 8	33	46 0	20 -27 0	10 16 2	1 10	-0 83	0 30	6 22	..	..	..	..		
Cap Rouge.....	46 46	71 18	..	4 9	-	2	41 0	1 -19 9	6 7 19 9	1 23	-	1 00	11 17	..	..	..	..		
D'Iberville.....	45 55	71 21	806	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Montreal.....	45 30	73 35	187	12 3	-2 3	38	41 0	20 -11 4	10 16 7	2 26	-0 97	0 49	17 13	..	1	..	1		
Quebec.....	46 48	71 13	296	8 0	-3 8	38	39 6	1 -17 4	7-13 15 5	2 87	-0 19	0 67	12 16	..	..	..	..		
Ste. Anne de Bellevue	45 27	73 59	..	10 9	-	7	44 0	20 -11 0	10 16 6	0 86	-	0 20	8 20	..	..	..	..		
Shawinigan Falls	46 34	72 43	..	-0 3	-	8	25 0	28 -7 0	13 23 5	2 00	-	0 90	7 21	..	..	..	1		
Sherbrooke.....	45 32	72 5	629	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Lower St. Lawrence & Gulf																			
*Anticosti E. Pt.	49 6	61 42	30	8 1	-3 6	28	34 0	1 -20 0	6 -	0 60	..	0 34	2 26	..	..	..	..		
*Anticosti, S.W. Pt.	49 52	61 32	39	6 6	-4 8	32	31 0	1 -16 0	6 -	3 03	..	0 68	11 17	..	..	..	..		
*Bicquet.....	48 25	68 53	..	7 0	-	30	30 0	1 -15 0	7-13	1 95	..	0 60	5 23	..	..	..	..		
*Cape Chatte.....	49 6	66 43	..	5 5	-8 8	24	33 0	1 -15 0	7-9	1 70	..	0 60	5 23	..	..	..	..		
*Cape Magdalen.....	49 16	65 20	93	6 6	-6 3	28	41 0	1 -15 0	6-7	4 00	+1 91	0 50	15 13	..	..	..	..		
Father Point.....	48 31	68 19	..	8 3	-2 8	35	42 0	1 -14 0	7 17 4	1 43	-0 90	0 68	8 20	..	..	..	..		
Ste Anne de la Pocatiere	47 22	70 2	65	..	..	1	..	..	..	2 45	-	0 80	14 14	..	..	..	..		
Lake St. John																			
Chicoutimi.....	48 25	71 5	150	..	..	34	..	..	-40 0	7 -	0 62	-1 02	0 30	12 16	..	..	..		
Chicoutimi (21).....	..	..	..	-0 1	-	2	43 0	1 -40 0	6 23 0	0 35	-	0 30	2 26	..	..	..	..		
Lake Edward.....	47 39	72 15	1333	..	-4 3	..	4 30 8	20 -44 0	12 28 9	1 15	-	0 60	3 25	..	..	..	..		
La Tuque.....	47 27	72 48	520	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Mistassini.....	48 54	72 15	360	-7 0	-	1	40 0	..	-44 0	7 28 1	0 32	-	0 10	5 23	..	..	4		
*Roberval.....	48 31	72 13	352	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
The Northwestern Districts																			
Abitibi.....	48 33	79 22	..	-6 4	-9 0	17	22 0	26 -40 0	9 26 1	1 90	+0 59	0 80	5 23	..	..	..	..		
Manouan Crossing	47 54	73 50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Weymontschigame (Donn A)	47 54	73 50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
White Shore Lake	48 12	75 43	..	-9 3	-	1	23 0	20 -48 0	9 30 5	0 45	-	0 25	3 25	1	..	..	..		
The North Shore																			
Clarke City.....	50 10	66 25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
NEW BRUNSWICK—																			
Chatham.....	47 3	65 29	21	10 9	-3 2	38	50 0	1 -16 0	7 20 9	2 35	-0 44	0 48	15 13	..	..	..	..		
Dalhousie.....	48 4	60 22	39	6 1	-4 4	36	35 0	1 -23 0	7 17 5	1 85	-0 98	1 20	4 24	..	..	..	..		
Friederickton.....	45 67	66 36	164	11 8	-4 3	40	37 5	31 -20 0	25 19 8	2 87	-1 08	0 60	12 16	..	..	1	..		
Moncton.....	46 0	64 45	50	12 8	-4 1	16	50 0	1 -15 0	6 24 0	1 40	-1 38	0 50	5 23	..	..	..	..		
*Point Lepreau.....	45 4	66 28	30	10 8	-2 7	35	42 0	21 -7 0	10 -	3 24	-0 80	0 80	7 21	..	..	..	..		
St. John.....	45 17	66 4	70	16 1	-3 6	40	46 2	1 -10 7	10 15 6	2 69	-0 55	0 71	11 17	..	..	3	..		
St. Stephen.....	45 11	67 16	35	13 7	-3 7	16	46 0	21 -20 2	25 21 4	2 23	-0 68	0 48	7 21	..	..	..	..		
Sussex.....	45 38	65 38	96	13 9	-2 2	16	52 0	1 -25 0	25 21 9	2 60	-1 12	0 80	7 21	..	..	..	..		
Williamsburg.....	..	..	..	9 9	-	1	45 0	1 -19 0	7 18 6	3 20	-	0 30	12 16	..	..	..	..		

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION				Days with 01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs				
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average	Heaviest fall in month									
NOVA SCOTIA—																							
Advocate.....	—	—	—	50	18.5	—	1	42 0	2	—15 0	—	16.1	—	—	—	—	—	—					
Antigonish.....	45 38	61 59	50	17.2	—	3	55 0	2-4	—24 0	—	—	24.4	—	—	—	—	—	—					
Halifax.....	44 39	63 36	88	19.6	-4.3	38	49 8	21	—14 2	—	—	13.2	3.29	-1.23	0.73	18	13	1					
Kentville.....	45 3	—	40	15.5	—	1	49 0	1	—9 0	—	13	16 6	1.85	—	0.42	9	19	—					
Merigonish.....	—	—	—	14.3	—	1	45.3	21	—18 0	—	—	16.5	1.93	—	0.40	11	17	—					
New Germany.....	—	—	—	18.5	—	1	46 0	21-28	—15 0	—	—	19.0	2.84	—	0.89	5	23	—					
Parrsboro'.....	45 23	64 19	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
Port Hastings.....	45 39	61 22	45	15.0	-4.7	22	35 0	—	—13 0	—	25	10.2	2.00	—	1.30	4	24	—					
*Sable Island, E. Pt.....	43 58	59 46	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
Sable Island (Main Station)	43 57	60 6	25	26.7	—1.9	23	49 0	1	—5 0	—	10	13.5	4.89	+0.24	1.05	15	13	—					
Sydney.....	46 10	60 10	35	17.4	-4.4	39	59 0	1	—11 0	—	7	17.6	4.50	+0.05	1.80	8	20	—					
Truro.....	45 22	63 18	77	14.8	-5.0	39	51 6	1	—28 3	—	7	22 2	3.22	-0.63	0.65	15	13	—					
*Whiteland.....	45 15	61 8	20	20.3	-2.9	43	0	1	—4 0	—	10	10	10.71	+6.16	3.07	8	20	—					
Windsor.....	44 59	64 6	90	19.5	-0.2	10	33 0	1	—8 5	—	7	14.6	2.09	-1.64	0.45	8	20	—					
Wolfville.....	45 7	64 20	—	18.3	-3.1	12	52.4	1	—5 1	—	10	15.5	2.33	-2.04	0.42	18	10	—					
Yarmouth.....	43 50	66 2	65	25.1	-0.8	32	48 0	1	—1 8	—	13	13.3	3.97	-0.20	1.13	18	10	—					
P. E. ISLAND—																							
Charlottetown.....	46 14	63 10	38	13.5	-4.6	37	46 0	1	—14 0	—	7	16.4	2.60	+0.05	0.50	12	16	1					
Charlottetown (Exp. Farm)	46 14	63 7	75	13.5	—	3	48 0	1	—17 5	—	7	17.9	2.52	—	0.63	10	18	—					
Hamilton.....	46 23	63 48	—	12.6	-4.5	16	48 0	2	—12 0	—	7	12.5	1.52	-1.69	0.60	5	23	—					
NEWFOUNDLAND—																							
*Amour Point.....	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
Burns.....	47 0	55 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
*Cape Norman.....	51 38	55 32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
Fogo.....	49 43	54 17	30	12.1	—	4	42 0	1	—13 0	—	7	1.35	3.32	—	1.00	11	17	—					
*Point Riche.....	50 42	57 25	35	7.1	—	29	39 0	1	—21 0	—	7	1	0.90	—	0.40	3	25	—					
Port aux Basques.....	47 35	59 10	27	14.8	—	5	49 0	19	—12 5	—	6	15 0	2.08	—	0.50	22	6	—					
St. George's.....	—	—	—	12.4	—	20	45 0	1	—15 1	—	6	16 0	1.71	—	0.40	15	13	—					
St. John's.....	47 34	52 42	125	18.2	-5.1	40	50 0	1	—8 0	—	7	12.2	2.88	-2.80	1.06	14	14	12					
LABRADOR—																							
North West River.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
BERMUDA—																							
Prospect.....	32 17	64 46	151	61.8	+0.1	22	72 0	15	46.2	—	26	11.5	5.90	+1.11	1.16	15	13	1					

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING FEBRUARY, 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date	Amount in inches.	No. of Days	Heaviest Fall in Month.	Date	
BRITISH COLUMBIA—										
Alkali Lake						0 1	1	0 1	28	
Annis (Canoe Point)	0 50	3	17	0 33	16	7 0	8	3 3	2	
Armstrong	0 49	2	23	0 39	16	11 8	3	7 5	3	
Akamina										
Beaver Lake	2 00	5	22	0 80	15	3 0	1	3 9	3	
Coquitlam	6 70	3	24	4 14	15	0 3	1	0 3	3	
Cariboo Road No 141										
Dennan's Island	2 29	8	19	1 29	16	2 0	1	2 0	4	
Ferguson						32 0	8	9 0	15	
Goldstream Lake	2 82	5	20	1 08	15	8 3	3	4 5	2-4-22	
Hydraulic						1 5	1	1 5	4	
Hornby Island	2 27	6	21	1 51	16	0 8	2	0 5	3	
Invermere	2 00	1	25	2 00	17					
Jordan River	4 90	7	20	1 40	15					
Jordan River (Bear Creek)	8 40	5	20	3 00	16	9 0	3	4 0	23	
Little Quilicum	2 31	3	25	1 77	16					
Lumby	0 20	2	22	0 18	17	8 5	4	4 0	3	
Monte Creek						6 0	1	6 0	3	
Nana Harbour	2 98	4	22	1 12	12	6 0	2	3 0	8-10	
Rock Creek						3 0	2	1 5	2-3	
Shawinigan Lake	1 65	7	20	0 78	16	2 0	1	2 0	4	
Wycliffe						14 0	3	8 0	17	
ALBERTA—										
Bardo						3 0	2	2 0	19	
Bismark						2 7	3	1 7	2	
Bruderheim										
Bittern Lake						8 3	6	3 0	1	
Brooks						6 5	6	3 5	17	
Beaver Mines	1 01	1		1 01	16	12 1	5	4 0	17-20	
Coleman					17	11 8	8	2 5	17-18	
Cowley	0 25	1	19	0 25		6 6	8	2 0	10	
Caldwell						22 5	9	5 0	19	
Claresholm						9 8	6	2 0	2-22	
Dorence (Bashaw)						8 0	4	3 0	18	
Dunstable (Five Lakes)						3 8	8	1 0	9	
Grassy Lake	0 00					0 0				
Jumping Pound						5 0	3	2 0	3-20	
Loeb Sloy										
Lyndon						15 5	5	5 3	3	
Lineham						14 2	4	5 0	17-24	
La Pearl										
Lethbridge						5 7	7	2 0	3	
Macleod						5 5	5	2 0	1	
Mayeroff	0 09	1	19	0 09	16	5 4	8	1 4	17	
Mountain View						18 0	4	8 0	21	
Nateby										
Nanton						6 0	4	2 0	2-17	
Okotoks						17 2	8	5 0	21	
Pekisko						11 5	6	5 0	17	
Ponoka										
Ston						3 7	2	2 0	21	
Seven Persons										
Tilley										
Writing-on-Stone (Coumts)						5 5	4	2 3	21	
Waterton Mills						24 2	7	13 5	21	
SASKATCHEWAN—										
Aberfeldy										
Gull Lake						7 0	3	3 0	18-24	
Gull Lake (Fks. Swift Cur.)						4 2	6	1 0	2	
Last Mountain										
Maple Creek						2 8	7	0 8	1-18	
Meadow Lake										
Willow Creek (Battle Cr.)						0 1	1	0 1	1	
MANITOBA—										
Cartwright						6 3	5	3 0	15-18	
Delomine										
Norquay (Swan Lake)						5 8	3	4 0	15	
Rapid City						7 9	5	4 0	17	
Rose Bank										
ONTARIO—										
Brantford(Bow Park Farm)	0 27	3	14	0 17	21	7 4	11	3 0	26	
Charlton										
Deer Park	0 45	1	24	0 45	22	4 5	3	2 8	15	
Dutton						3 0	2	2 0	23	
Enniskillen	0 23	2	15	0 15	21	28 0	11	6 0	3-4	
Fort Frances						3 8	4	2 7	18	
Georgetown	0 51	3	17	0 50	22	8 3	8	2 0	15	
Grantham	0 73	3	19	0 36	23	5 8	6	2 3	27	
Grand Valley						18 0	10	3 0	8-26	
MacCee						9 0	3	4 0	15-22	
Princeton										
Renfrew										
Swedenham						9 0	4	3 0	23	
Strathroy						14 0	12	2 0	8-27	
Watford	0 64	1	15	0 64	22					
Westport	0 85	2	26	0 65	22					
Westminster						8 9	8	2 5	22	
Wooler	0 74	1	26	0 74	23	6 0	1	6 0	28	
Wesley										
Wattenwyl	0 28	1	22	0 28	20	22 5	5	7 0	3	
Warton	0 21	1	18	0 21	21	50 0	9	10 0	22	
QUEBEC—										
Bark Lake (Riviere Desert)										
Kipawa Dam										
Lucerne										
Perkins Mills	0 02	1	19	0 02	20	28 5	8	10 0	15	
Quinze Dam						5 6	8	2 5	7	
Timiskaming	0 05	1	20	0 05	20	8 0	2	7 0	22	
New Brunswick—						17 1	7	6 0	21	
Point Escommac	0 12	2	22	0 09	1	13 5	4	5 2	23	
NOVA SCOTIA—										
Big Mushamush Lake (Mahone)										
Kentville										
Milton	1 01	2	22	0 75	1	15 3	4	6 0	3	
Mushamush River (Mahone)										
Napuan	0 45	1	21	0 45	1	17 0	6	6 0	23	
South Alton	1 96	4	10	1 00	23	39 0	14	7 0	11	
White Rock	0 90	1	21	0 90	1	8 7	6	3 0	28	



STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.				DIRECTION OF WIND FROM										VELOCITY OF WIND				
				Mean reduced.	Highest.	Lowest.	Range.	Mean amount of cloud.	No. of days completely clouded.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.				
BRITISH COLUMBIA—																										
Atlin	59	35	133	38	2210	30	21	31	08	28	28	1	80													
Barkerville	53	53	123	35	2210	30	13	30	55	29	62	0	96													
Kamloops	50	42	120	20	1245	30	20	20	30	59	51	0	131													
Nanaimo	49	10	123	37	2210	30	03	30	38	29	63	0	75													
Prince Rupert	54	18	130	18	1705	30	06	30	52	29	51	0	101													
Triangle Island	50	52	129	5	1360	30	08	30	49	29	70	0	70													
Tranquille	50	11	123	20	2158	38	84	29	37	28	32	0	105													
Vancouver	49	17	123	5	1380	30	13	30	49	29	65	0	80													
Victoria	48	24	123	19	85	30	11	30	47	29	67	0	80													
YUKON—																										
Dawson	64	4	139	20	1200																					
ALBERTA—																										
Banff	51	10	115	34	4542	30	16	30	80	29	52	1	28													
Calgary	51	2	114	2	3389	30	11	30	70	29	56	1	14													
Edmonton	53	33	113	30	2158	30	11	30	69	29	64	1	05													
Medicine Hat	50	1	110	37	2161	30	11	30	71	29	83	1	23													
SASKATCHEWAN—																										
Buttleford	52	41	108	20	1020	30	10	30	52	29	64	0	88													
Moose Jaw	50	21	105	35	1479	30	17	30	65	29	59	0	106													
Prince Albert	53	10	106	0	1750	30	07	30	51	29	67	0	84													
Qu'Appelle	50	30	103	47	2115	30	06	30	47	29	63	0	85													
Swift Current	50	30	107	45	2339	30	09	30	58	29	50	0	106													
MANITOBA—																										
Avenue (St. Alban's)	49	42	99	33	1180	30	05	30	49	29	72	0	77													
Minnedosa	50	15	99	50	1099	30	14	30	51	29	80	0	71													
Le Pas	53	49	101	15	860	30	11	30	51	29	80	1	35													

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF FEBRUARY, 1913

STATION	DIRECTION OF WIND FROM								Total num- ber of Observ- ations	
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing	1	0	2	0	1	0	10	14	0	28
Didsbury	1	0	2	0	0	3	0	22	0	28
Endiang										
Halkirk (Emsburg)	4	1	3	2	5	13	10	18	0	58
Hillsdown	2	3	0	4	0	7	3	30	7	56
Loveland	1	4	2	4	0	7	9	29	0	58
Macleod	12	0	2	0	1	0	22	2	17	56
Pakan (Victoria)										
Ranfurly (Watfield)	5	3	3	4	1	4	17	37	10	84
SASKATCHEWAN—										
Chaplin	4	0	0	7	0	0	0	17	0	28
Crescent Lake	1	2	1	3	3	3	10	3	2	28
Estevan	0	2	3	0	7	8	4	4	0	28
Fort Qu'Appelle	5	5	12	2	1	1	22	5	2	56
Grenfell (Brownhill)	2	3	0	9	6	11	0	11	0	42
Indian Head	6	2	2	9	9	12	6	34	4	84
Larchmount (Glenbryan)	1	4	0	3	0	16	10	22	0	56
Moosomin										
Muenster (St. Peter's Monastery)	0	2	5	3	9	8	10	19	0	56
Onion Lake	2	2	6	1	0	0	8	8	1	28
Pense (Gatesgarth)	0	1	0	8	0	0	5	14	0	28
Waseca	1	2	5	1	0	4	4	11	0	28
MANITOBA—										
Berens River	16	0	10	1	10	3	0	15	1	56
Brandon	1	22	1	1	0	11	13	19	5	73
Hillview	1	2	11	8	0	10	10	42	0	84
Moose Horn Bay (Aitkensville)										
Morden	18	2	0	1	1	9	10	7	8	56
Oak Bank	14	2	3	1	1	5	18	8	4	56
Stony Mountain	4	13	2	1	6	4	19	7	0	56
ONTARIO—										
Agincourt	2	7	12	3	0	21	18	21	0	84
Alton										
Beatrice	3	0	3	7	10	11	4	18	28	84
Birnam	6	3	5	6	3	9	12	7	0	51
Clinton	5	3	3	7	3	13	11	11	0	56
Cottam	14	1	5	7	5	3	21	0	0	56
Gravenhurst	8	3	18	5	10	6	11	6	17	84
Lindsay	5	6	5	9	2	23	11	16	7	84
North Bruce	9	10	8	3	8	16	28	2	0	84
Orillia										
Owen Sound										
Point Clark	9	4	10	5	6	11	10	1	0	56
Port Dover	3	2	4	1	4	1	8	5	0	28
Stoney Creek	10	12	11	4	1	13	27	6	0	84
Uplands	6	2	1	1	6	2	8	2	0	28
Wexford	2	0	5	1	0	2	7	8	3	28
QUEBEC—										
Abitibi	12	1	13	5	14	5	29	5	0	84
Anticosti, W. Pt.	16	4	14	2	6	5	4	33	3	84
Anticosti, Heath Point	30	3	10	2	3	5	10	14	7	84
Bicquet	10	10	0	0	16	11	6	31	0	84
Brome	5	2	6	0	10	9	39	7	6	84
Cape Chatte	3	1	5	1	0	3	51	1	19	84
Cape Magdalen	2	0	9	4	9	1	0	49	10	84
Cap Rouge	7	6	0	0	0	0	0	15	0	28
Chicoutimi	0	8	0	2	0	0	0	53	21	84
Clarke City										
Manouan Crossing										
White Shore Lake										
NEW BRUNSWICK—										
Dalhousie	0	0	6	1	0	1	18	1	0	27
Moncton	3	4	2	0	1	1	4	13	0	28
Pt. Lepreaux	13	10	9	1	0	6	3	30	0	72
Sussex	0	4	0	0	1	0	0	9	14	28
NOVA SCOTIA—										
Kentville	4	1	3	0	1	5	11	3	0	28
Parrsboro										
Port Hastings	0	9	0	5	0	6	0	8	0	28
Sable Island, E. Pt.										
Truro										
Whitehead	19	7	6	5	6	14	2	25	0	84



MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
FEBRUARY 1913.

STATION.	HOURS ENDING															
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria.....					.01	.19	.31	.39	.44	.45	.47	.44	.28	.01		
Ss'mon Arm.....					.03	.18	.31	.44	.52	.59	.66	.60	.52	.16	.01	
Vancouver.....					.05	.28	.36	.46	.50	.45	.49	.42	.33	.12		
Agassiz.....					.08	.36	.49	.46	.41	.50	.45	.49	.38	.10		
Tranquille.....																
Summerland.....					.25	.50	.69	.68	.65	.70	.65	.63	.34	.02		
Kamloops.....					.09	.24	.30	.43	.51	.55	.53	.56	.39	.06		
Harper's Ranch.....				.04	.15	.28	.41	.58	.57	.48	.41	.21	.06	.04	.03	
Edmonton.....					.04	.25	.28	.44	.50	.51	.54	.57	.42	.11		
Lethbridge.....					.08	.38	.39	.44	.49	.50	.49	.46	.36	.04		
Lacombe.....					.11	.32	.39	.51	.45	.45	.49	.48	.38	.11		
Medicine Hat.....																
Fort Dunvegan.....					.01	.18	.35	.46	.53	.48	.51	.48	.18			
Fort Vermilion.....					.13	.39	.53	.62	.63	.62	.65	.50	.23	.01		
Battleford.....					.05	.30	.52	.60	.61	.64	.63	.64	.63	.13		
Indian Head.....						.08	.27	.35	.36	.38	.35	.27	.16	.04		
Moosejaw.....					.06	.24	.35	.41	.38	.43	.43	.44	.40	.15		
Scott.....					.09	.23	.36	.41	.48	.53	.42	.55	.41	.12		
Rosethorn.....					.05	.25	.31	.33	.38	.59	.59	.52	.45	.22		
Brandon.....					.08	.47	.56	.61	.60	.56	.46	.44	.23			
Winnipeg.....					.01	.22	.44	.48	.52	.54	.65	.65	.47	.11		
Haileybury.....					.12	.33	.44	.51	.51	.50	.58	.53	.43	.26		
Woodstock.....					.02	.18	.37	.51	.46	.44	.46	.55	.40	.15		
Lindsay.....					.05	.31	.48	.47	.54	.57	.58	.47	.16			
Barrie.....					.09	.24	.32	.50	.41	.46	.47	.46	.25	.08		
Toronto.....					.03	.20	.40	.53	.57	.59	.56	.54	.52	.23	.01	
Kingston.....					.01	.21	.36	.49	.51	.53	.51	.44	.32	.04		
Ottawa.....					.15	.44	.52	.59	.56	.61	.49	.42	.48	.18		
Montreal.....																
Cap Rouge.....					T	.22	.32	.43	.42	.37	.39	.36	.25	.04		
Quebec.....					.01	.24	.44	.54	.53	.46	.45	.42	.31	.08		
Ste. Anne de la Poestiere.....				.11	.34	.51	.51	.45	.44	.35	.34	.28	.08			
Sherbrooke.....																
Fredericton.....					.07	.43	.48	.53	.52	.55	.51	.51	.51	.28		
Charlottetown.....					.11	.30	.39	.39	.41	.43	.49	.45	.40	.19	.01	
Nappan.....					.05	.28	.47	.49	.50	.49	.49	.49	.50	.24	.01	
Wolfville.....					.07	.25	.26	.30	.34	.40	.40	.39	.35	.20	T	



*Thunder recorded :*

1. Charlottetown, Fredericton.
- 2.
- 3.
- 4.
5. Bermuda
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
17. Nakusp.
- 18.
19. Providence Bay.
20. Clinton, Lucknow, Point Clark.
- 21.
22. Georgetown, Westminster, Elora, Paris, Birnam, Clinton, Port Stanley, Woodstock, London.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.

*Auroras recorded:*

- 1.
2. Ranfurly II.
3. Atlin III.
- 4.
5. Atlin III.
6. Atlin IV.
- 7.
- 8.
- 9.
- 10.
11. Kakabeka Falls III, Schreiber III, Aitkensville III.
12. Waseca, Swift Current II, Haileybury III.
- 13.
14. Halkirk.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
21. Montreal.
- 22.
- 23.
24. Aweme III, Haileybury III.
25. Aweme IV, White Shore Lake III, Ranfurly IV.
26. Schreiber IV, Aweme IV, Melfort IV, Swift Current III, Ranfurly III.
- 27.
- 28.

## FORECASTS FOR FEBRUARY 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1179. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			Per- centage
		No. Fully.	No. Partly.	No. Not.	
Alberta.....	78	59	13	6	84.9
Saskatchewan.....	80	57	15	8	90.6
Manitoba.....	80	60	15	5	84.4
Lake Superior.....	95	78	15	2	90.0
Georgian Bay.....	115	78	14	14	75.7
Ottawa Valley.....	97	73	12	12	81.4
Upper St. Lawrence.....	96	73	15	8	83.9
Lower Lake Region.....	115	93	12	10	86.1
Lower St. Lawrence.....	101	75	20	6	84.2
Gulf.....	101	75	23	5	83.7
Maritime Provinces West.....	110	81	21	8	83.2
Maritime Provinces East.....	111	79	26	12	77.5
Total.....	1179	873	205	101	82.7

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
March 27th, 1913.



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

MARCH, 1913

No 3.

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

From the Pacific Coast to Lake Huron, the mean temperature of March was lower than the average mean, except in a part of Southern Alberta. Eastward from the Georgian Bay to Newfoundland, however, there was an excess over average temperature.

### BRITISH COLUMBIA.

Over the greater part of the province the difference from average was negative, and about 3°. The greatest differences occurred in the region about the upper Fraser River, exceeding 5°. The early days of the month were quite mild, but between the 18th and 26th intervened a period of very cold weather, temperatures considerably below zero occurring in the northern sections of the province.

### THE WESTERN PROVINCES.

From the 12th to the 27th minimum temperatures were below zero, while maximum temperatures did not as a rule exceed 20°. The remainder of the month was moderately cold.

In the country between Calgary and Edmonton very mild weather during the first and last weeks brought the mean temperature of the month up to average, or a very little higher. Elsewhere in these provinces, however, the mean temperature was lower than average, the greatest differences occurring in Manitoba, where they ranged between 5° and 10°.

### ONTARIO.

During the first ten days minimum temperatures below zero were reported on from 1 to 6 days. After the 12th, however, much milder weather ensued, temperatures between 50° and 70° occurring frequently during the remainder of the month. The general difference from average was 3° above, but 5° was reported from some districts.

### QUÉBEC AND THE MARITIME PROVINCES.

Temperatures below zero were recorded on from 8 to 11 days in the region between Abitibi Lake and Lake St. John, but along the middle St. Lawrence and in the Maritime Provinces on no more than 3 days, and in some parts of Nova Scotia not at all. The general difference from average was 3°, although in the western counties of New Brunswick, more than 4° was reported.



## HIGH AREAS.

Ten areas of high pressure were charted. Five first appeared in the Yukon Territory, one near Vancouver Island, two on the United States Pacific Coast, one in Saskatchewan, and one in Manitoba. The general drift of the areas was southeastward to the Lower Mississippi Valley, thence eastward and off the United States Atlantic seaboard, while, with few exceptions, they were of moderate energy only.

## LOW AREAS.

Fifteen areas of low pressure were charted. Seven first appeared in the far northwestern portion of the continent: four in the Pacific States; three in the Southwest States, and one in the vicinity of Florida. The general track of the areas was over or a little to the southward of the Great Lakes, thence to the Maritime Provinces, and out to sea. Many of the systems were of much energy, causing a large wind mileage for the month in nearly all portions of the Dominion.

The system which appeared on the 17th on the Pacific Coast, near the International Boundary, after moving southeasterly to Northern Texas, quickly recurved to the northeast during the night of the 20th, with greatly increasing energy, and on the 21st it passed over the Lower Lake and the Georgian Bay districts, accompanied by winds of hurricane force.

## ATMOSPHERIC PRESSURE.

Using the results obtained at the Telegraph Reporting Stations as indicative of conditions throughout Canada, it appears that during March the pressure exceeded the normal in British Columbia, Northern Alberta, Quebec, and the Maritime Provinces, and reached the average in Manitoba. Elsewhere in the Dominion, subnormal values obtained. Positive differences from average exceeded 0.15 of an inch in British Columbia and the Maritime Provinces, and negative departures were about 0.05 of an inch in Northern Ontario and 0.02 of an inch in Saskatchewan.

## PRECIPITATION.

## BRITISH COLUMBIA.

Along the Fraser River and the north coast the normal precipitation was exceeded, the excess in some instances reaching fifty per cent. Over the remainder of the province there was a general deficiency which was greatest on Vancouver Island.

## THE WESTERN PROVINCES.

Along the Qu'Appelle River there was a general excess which was large relatively to the small normal March precipitation. Elsewhere in these provinces the distribution was very irregular.

## ONTARIO.

In the counties bordering on Lakes Erie and St. Clair, and in the Niagara Peninsula there was a very heavy precipitation, the excess in several places approaching 4 inches. In the counties contiguous to these the precipitation was nearly as great, but elsewhere in the province, although excess over normal was general, it was much smaller.

## QUEBEC.

Along the middle St. Lawrence, where the normal precipitation for March ranges between 2 and 3 inches, from 3 to 7 inches were reported, but over the remainder of the province there was a general deficiency.

## MARITIME PROVINCES.

In New Brunswick and Prince Edward Island there was a marked excess over normal which was not maintained in Nova Scotia.

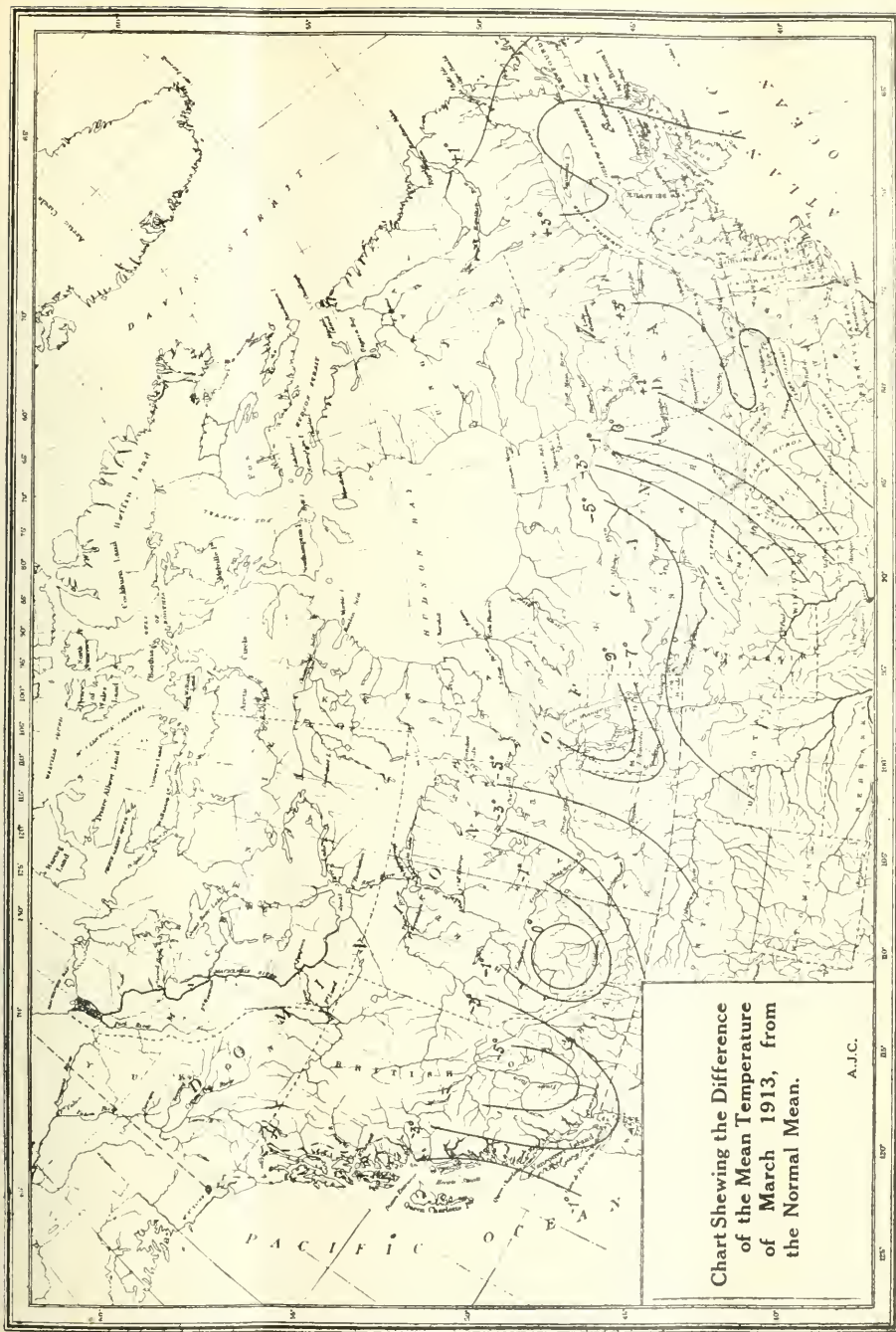


Chart Shewing the Difference  
of the Mean Temperature  
of March 1913, from  
the Normal Mean.

A.J.C.

## WINDS, MARCH, 1913

PROVINCES AND STATIONS	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION.
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin .....									
Prince Rupert .....									
Victoria .....	6122	570	40	SW	29	3	8	9	SW
Point Garry .....									
Vancouver .....									
Kamloops .....									
ALBERTA.									
Edmonton .....	4755	270	22	NW	30		2	14	NW
Calgary .....	4233	263	22	NW	30		3	13	NW
SASKATCHEWAN									
Battleford .....	4307	270	23	NW	28		5	13	NW
Prince Albert .....									
Swift Current .....									
Qu'Appelle .....	7403	437	26	NW	16		7	18	SW, NW
MANITOBA									
Le Pas .....	4427	309							SW, NW
Winnipeg .....	8750	398	32	NW	4	3	12	13	SW, W, NW
ONTARIO.									
Port Arthur .....	8792	788	52	NW	24	4	9	16	NW
White River .....									
Cochrane .....									
*Hurry Sound .....	6444	539	52			3	7	8	SW
Souhampton .....									
Pelee Island .....									
Woodstock .....	9631	538	47	SW	21	5	13	9	SW
*Guelph .....	6620	504							SW
Toronto .....	11940	765	48	W	21	8	20	3	W
*Kingston .....	5066	547	31	SW	18	3	15	8	W
Stonecliffe .....	3827	294	20	W	21		1	9	W
Ottawa .....									
QUEBEC									
*Montreal .....	8489	582	60			1	22	8	SW
Sherbrooke .....									
Quebec .....	10743	888	58	SW	22	10	12	5	SW
Father Point .....	13989	988	55	SW	22	16	8	4	SW
Anticosti .....									
Harrington .....									
NEW BRUNSWICK									
Pt. Escominc .....									
Fredericton .....	7347	548	36	NW	28	3	7	13	SW
St. John .....	11222	688	40	SW	7	11	6	3	SW
Pt. Lepreaux .....	14886	914	53	W	6	21	7	3	W
NOVA SCOTIA									
Yarmouth .....	11074	688	41			6	10		S
Wolfville .....	10845	615	41	SE	31	10	11		W
Halifax .....	11520	626	54	SW	8	13	12	4	NW
Sable Island .....									
Flat Point .....	12489	834	45	N	23	13	14	3	SW, W, NW
PRINCE EDWARD ISLAND									
Charlottetown .....	7384	462	36	SW	7	2	9	19	SW

\* Part of month only.

# FREE AIR DATA.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on March 5th, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—728 mm.

Temperature =  $-3^{\circ}.5\text{C}$ .

Direction of flight at beginning—Northeast in a gale

Fell—200 km. distant, N. 60° E.

Maximum Height—7.1 km.

Minimum Temperature =  $-55.5^{\circ}\text{C}$ .

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.
G.L. — .30	728	— 3.50
.50	707	— 6.50
1.00	661	— 1.50
1.50	619	—12.50
2.00	580	—16.00
2.50	540	—21.50
3.00	504	—25.50
3.50	468	—32.00
4.00	437	—36.00
4.50	407	—40.50
5.00	377	—42.50
5.50	348	—53.00
5.80	332	—55.50
6.00	322	—56.00
6.50	298	—55.00
7.00	276	—54.00
7.10	272	—54.00

An area of low pressure covered the eastern part of the continent, its centre lying over Lake Huron.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1913

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.						Days with .01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.														
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.																				
BRITISH COLUMBIA--																																		
S. Vancouver Island																																		
Alberni (Beaver Creek).....	49 15	124 49	300	38.3	- 3.8	18	65.0	9	14.0	20	20.4	3.53	-2.03	1.05	13	16	..	2	..															
Clayoquot.....	49 11	125 55	27	42.5	+ 0.1	13	56.0	10-11	26.0	19	11.6	8.43	-1.66	1.68	17	12	..	..	..															
Cloose.....	..	..	..	39.4	—	1	52.0	9	18.0	19	13.4	4.90	—	0.67	12	19	..	..	..															
Cowichan (Tzouhalem).....	48 25	123 42	170	39.6	—	1	57.2	7	19.0	25	16.1	2.04	—	0.34	14	17	..	..	..															
Departure Bay.....	..	..	..	..	..	..	55.1	8	..	..	..	2.25	—	0.80	11	20	..	..	..															
Nanaimo.....	49 10	123 37	125	39.1	- 2.7	13	60.0	8	12.1	20	15.5	2.99	-0.11	1.20	19	21	..	..	..															
Nanoose Bay.....	49 17	124 12	130	37.2	—	1	54.0	8	15.0	20	16.7	1.32	—	0.33	10	21	..	..	..															
Salt Spring Island.....	48 50	123 20	..	38.5	—	4	53.0	9	23.0	19	11.5	2.42	—	0.49	14	17	..	..	..															
Sooke.....	48 41	123 44	25	39.3	—	3	57.0	7-9	18.0	20	15.3	3.17	—	0.60	11	20	..	..	..															
Victoria.....	48 24	123 19	55	41.4	- 2.8	20	56.6	7	22.7	20	12.4	2.00	-0.71	0.62	16	15	..	..	2															
N. Vancouver Island																																		
Holberg.....	50 39	128 18	..	38.7	—	4	52.7	7	19.0	21	10.6	5.84	—	1.79	17	14	..	..	..															
Swanson Bay.....	50 37	126 53	..	34.9	—	5	45.0	12-13	16.0	19	9.1	18.02	—	2.50	20	11	..	..	..															
Triangle Island.....	50 52	129 5	680	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..															
Winter Harbour (Quinsino).....	50 32	127 40	..	40.8	- 1.0	18	56.0	7	20.0	20	13.2	4.26	-5.15	0.74	15	16	..	..	..															
Lower Fraser River																																		
Agassiz.....	49 14	121 31	52	40.3	- 3.6	21	59.0	8	17.0	19	14.9	7.66	+2.68	1.94	13	18	..	..	..															
Chilliwack.....	49 10	121 57	21	39.2	- 3.1	13	59.0	7-9	18.0	19	13.5	7.46	+2.77	1.24	17	14	..	..	..															
Hop.....	49 23	121 25	500	34.8	—	4	58.0	6	7.0	20	18.6	4.76	—	0.74	12	19	..	..	..															
Ladner.....	49 05	123 4	..	40.5	- 1.1	13	56.0	6	20.0	19	10.9	2.70	-3.41	0.50	9	22	..	..	..															
New Westminster.....	49 13	122 54	330	39.2	- 3.3	25	56.2	9	18.2	20	13.3	6.28	-0.17	1.55	17	14	..	..	4															
North Nicome.....	49 12	122 2	69	39.4	- 3.1	21	59.0	7	20.0	25	15.0	7.54	+0.52	1.60	14	17	..	..	..															
Pemberton Hatchery.....	50 20	122 33	..	34.0	—	5	51.5	7	10.0	19-25	15.4	0.77	—	0.20	7	24	..	..	..															
Pemberton Meadows.....	..	..	..	32.9	—	1	55.0	6	—	10	20.7	1.05	—	0.50	8	23	..	..	..															
Ruskin (Stave Falls).....	49 16	122 23	125	37.4	—	4	52.0	31	19.0	24	13.6	3.93	—	2.57	15	16	..	..	..															
Steveston (Garry Point).....	49 21	123 17	..	39.0	- 1.9	18	53.0	6	20.0	20	12.8	2.85	+0.32	0.71	11	20	..	..	..															
Vancouver.....	49 17	123 6	136	40.0	- 2.7	12	54.0	7	19.7	20	11.7	5.37	+1.22	1.50	17	14	..	..	..															
Upper Fraser River																																		
Babine Lake.....	55 38	126 26	..	11.3	—	5	49.0	6	-25.0	20	25.9	1.65	—	0.50	6	25	..	..	..															
Barkerville.....	53 02	121 35	4180	20.9	- 4.8	23	55.0	7	-19.0	19	13.9	4.15	+2.08	1.50	14	..	1	..	..															
Chilcoot (Big Creek).....	54 40	123 0	3100	22.4	+ 4.9	10	50.0	7	-26.0	19	25.4	0.65	+0.17	0.35	5	26	..	..	..															
Fort George.....	..	..	..	22.4	—	1	47.0	7	-30.0	20	22.4	4.48	—	1.30	13	18	..	..	..															
Fort St. James (Stuarts Lake).....	54 28	124 12	2280	20.8	+ 0.3	20	45.0	6-7	-26.0	20	21.2	0.01	+0.18	0.30	9	22	..	..	..															
Hydraulic.....	..	..	..	24.6	—	1	51.0	7	-19.0	19	19.9	2.07	—	0.89	8	23	..	1	..															
Quesnelle.....	52 59	122 30	1700	24.4	- 5.0	16	55.0	8	-17.0	20	23.7	1.18	+0.74	0.43	4	27	..	1	..															
Okanagan Valley																																		
Armstrong.....	..	..	..	29.9	—	1	53.0	5-6	- 4.0	20	21.5	0.42	—	0.14	4	27	..	..	..															
Hedley.....	19 35	120 10	1771	32.9	—	9	54.0	9	1.0	19	18.7	0.94	—	0.37	5	26	..	..	3															
Hedley (Nickel Plate).....	..	..	..	21.6	—	8	45.0	8	-16.0	20	19.4	0.65	—	0.20	6	29	..	..	..															
Keremeos.....	..	..	..	34.8	—	6	55.0	30	7.0	20	17.4	0.13	—	0.05	6	25	..	..	..															
Kelowna (Okanagan Mission).....	49 15	119 29	1200	32.8	- 3.7	14	55.0	29	6.0	20	16.7	0.26	-0.47	0.10	6	25	..	..	..															
Penticton.....	49 29	119 35	..	34.8	—	7	58.0	30	7.5	20	19.8	0.28	—	0.11	6	25	..	..	..															
Princeton.....	49 29	120 29	1650	30.4	- 2.1	18	53.0	6	- 5.0	20	23.3	0.18	-0.43	0.10	3	28	..	..	..															
Richlands.....	..	..	..	27.2	—	1	53.0	29	-10.0	20-25	23.8	0.00	—	0.00	0	31	..	..	..															
Sumnerland.....	49 36	119 49	1100	32.2	—	6	53.0	30	6.0	20	16.1	0.29	—	0.10	2	29	..	..	..															
Vernon (Coldstream Ranch).....	50 14	119 15	1582	28.6	- 6.6	18	50.0	29	0.0	20	16.6	0.34	-0.33	0.06	7	24	..	..	..															
West Kootenay																																		
Crawford Bay.....	49 45	116 45	2000	30.2	—	2	49.0	8	6.0	19	15.1	3.76	—	0.71	9	22	..	..	..															
Creston.....	..	..	..	29.6	—	1	51.0	31	2.0	19	15.6	1.48	—	0.40	8	23	..	..	..															
Grand Forks.....	49 2	118 27	..	32.4	—	3	53.0	29-30	7.0	20-21	17.3	0.72	—	0.19	8	23	..	..	..															
Greenwood.....	49 5	118 49	..	30.3	—	2	59.0	31	- 3.0	19-20	24.1	0.33	—	0.20	2	29	..	..	..															
Nelson.....	..	..	..	28.6	—	1	48.0	8	—	20-21	15.5	0.19	—	0.14	2	29	..	..	..															
Kaslo.....	49 52	117 0	1752	29.2	—	4	45.0	8-9	0.0	20	14.1	1.11	—	0.45	7	24	..	..	..															
Nakusp.....	..	..	..	29.1	—	2	48.0	9-30	- 2.0	25	15.8	2.00	—	0.80	8	23	..	..	..															
Nezdes (Fagner).....	..	..	..	30.7	—	4	48.0	9	- 1.0	21	25.3	0.77	—	0.27	0	31	..	..	..															
Nelson.....	49 29	117 21	1760	32.9	- 4.1	10	56.0	8	4.0	20	16.4	1.42	-0.21	0.32	6	25	..	..	..															
Reedland.....	49 5	117 48	3400	29.7	—	10	44.5	8	4.0	20	11.7	2.17	+0.00	0.75	10	21	..	..	..															
East Kootenay																																		
Akamina.....	49 10	114 20	4150	..	..	..	..	9	-21.0	..	..	..	—	1.30	3	28	..	..	..															
Crabbrook.....	49 30	115 50	..	26.7	—	4	54.0	9	-21.0	20	25.2	0.62	-0.49	0.40	3	28	..	..	..															
Tobacco Plains (Elko).....	49 1	115 5	2684	28.8	- 5.2	18	54.1	9	-10.9	20	16.8	0.62	—	0.30	3	28	..	..	..															
Waneta.....	..	..	..	29.5	—	1	49.5	9	1.5	20	16.4	0.92	—	0.04	1	30	..	..	1															
Wilmer.....	50 34	116 14	..	23.5	—	4	47.0	9	- 2.0	23-26	19.8	0.55	—	0.45	2	29	..	..	..															
Thompson River																																		
Ashcroft.....	..	..	..	33.2	—	1	57.0	30	5.0	19	18.4	0.00	—	0.00	0	31	..	..	..															
Enderby.....	50 32	119 7	1180	30.6	- 5.1	11	34.0	31	0.0	19	19.8	0.44	-0.27	0.22	6	25	..	..	..															
Harper's Ranch.....	..	..	..	30.0	—	1	63.0	10	2.0	20	19.1	0.15	—	0.10	2	92	..	..	1															
Kemloops.....	50 41	120 29	1245	32.2	- 4.6	19	57.0	30	5.6	20	17.1	0.17	-0.25	0.10	4	27	..	..	..															
Moote Creek.....	50 9	120 39	2120	28.8	—	2	56.0	30	0.0	18	19.3	0.62	—	0.32	2	29	..	..	..															
Nicola Lake.....	..	..	..	30.7	- 1.8	18	57.0	8	—	20	17.1	0.15	-0.50	0.10	2	29	..	..	..															
Salmon Arm.....	50 42	119 35	1152	30.3	—	11	51.0	8-30	- 1.0	20	18.2	0.60	—	0.26	7	24	..	..	..															
Salmon Arm (Exp. Farm).....	..	..	..	29.0	—	2	50.0	30	- 4.0	19	18.6	0.51	—	0.30	3	28	..	..	..															
Tapscott.....	..	..	..	34.4	—	1	58.0	30	2.0	20-22	22.5	0.75	—	0.26	7	24	..	..	..															
Tranquille.....	50 41	120 29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..															
North Columbia River																																		
Glacier.....	61 14	117 20	4072	18.9	- 6.5	13	38.0	8	-12.0	20-21	13.3	8.05	+1.65	1.80	16	15	..	..	..															
Golden.....	51 0	118 5	1476	20.6	- 5.8	17	40.0	8	-20.0	20	21.7	0.90	+0.08	0.65	2	29	..	..	..															
Invermere.....	51 0	118 5	..	25.6	—	1	58.0	28	-24.0	20	29.4	0.35	—	0.20	2	29	..	..	..															
Revelstoke.....	51 16	115.55	2550	29.3	- 4.6	13	48.0	13	- 6.0	21	18.8	1.29	-1.59	0.30	9	22	..	..	..															





## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1913

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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.			Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.					
SASKATCHEWAN—																		
Qu'Appelle River																		
Brownhill (Grenfell P.O.).	50 23	102 53	1957	8.8	— 8.6	11	42.0	31	—33.0	1	22.6	1.40	+0.31	0.20	8	23		
Brownlee.	50 46	106 0																
Buchanan.	50 50	102 25	1658	4.4	—	8	42.0	29	—32.7	1	26.2	0.68	—	0.16	10	21	2	
Crescent Lake.	49 12	103 4	1855	18.5	— 4.8	10	51.0	31	—18.0	1	17.7							
Eaton.	51 5	103 24		11.1	—	2	50.0	31	—34.5	26	28.8	0.60	—	0.15	9	22		
Fort Qu'Appelle.	51 5	103 24		4.1	—	7	39.0	29-31	—37.0	1	23.0	1.00	—	0.30	6	25		
Hubbard (Drumague).	52 12	105 9		8.2	—	2	44.0	31	—27.0	1	23.5	0.60	—	0.30	2	29		
Humboldt.	51 22	103 23		9.8	— 5.4	21	45.0	31	—31.0	1	23.4	1.17	+0.52	0.30	9	22		
Imperial.	50 28	103 40	1924	4.5	—	4	40.0	29	—32.0	2	26.0	0.55	—	0.20	4	27		
Indian Head.	49 43	102 0	2064															
Kamsack.	50 21	105 35	1759	15.7	— 0.7	18	53.0	31	—26.0	1	24.4	0.49	+0.24	0.20	5	26		
Manor.	50 0	101 37	1884	5.3	—	7	45.0	8	—37.0	1	23.9	0.89	—	0.50	6	25		
Moose Jaw.	52 25	105 9		4.0	—	2	47.0	7	—38.0	1	27.8	0.91	—	0.63	3	28		
Mosomin.	50 20	102 0	1879	14.0	+ 6.5	15	50.0	31	—24.0	19	22.0	1.17	—	0.47	5	26		
Muenster (St. Peter's Mon.).	50 30	103 47	2115	11.2	— 3.1	29	44.0	31	—32.0	1	21.9	1.21	+0.13	0.30	8	23		
Pilger.	52 4	104 14	1600															
Pense (Gatesgarth).	50 27	104 37	1885	11.0	— 2.2	27	46.0	31	—30.0	1	24.3	0.49	+0.02	0.23	7	24		
Qu'Appelle.	51 5	104 57	1885															
Quill Lake.	50 30	102 4		6.6	—	6	41.0	30	—31.0	1	23.1							
Regina.	49 49	104 9		13.3	—	2	47.0	29	—25.0	1	20.3	0.71	—	0.20	4	27		
Strasbourg.	51 11	102 29		5.7	—	4	42.0	29	—31.0	1	26.0							
Yarbo (Fairfield).																		
Yellow Grass.																		
Yorkton.																		
S. Saskatchewan River																		
Chaplin.	50 26	106 30	2202	14.1	— 3.6	27	50.0	31	—27.0	19	24.8	0.50	—0.20	0.20	6	25		
East End (Divide).	49 31	108 49		16.1	—	4	46.2	7	—23.6	1	18.0	1.08	—	0.50	8	23		
Kelvinhurst (Nashlyn).	51 46	108 10		18.6	—	3	48.0	28	—34.0	20	26.3	0.65	—	0.30	5	26		
Larchmont (Glenbryan).	49 21	109 29																
Oliver.	49 54	107 27		10.5	—	3	41.2	8	—35.5	1	23.6	0.45	—	0.20	3	28		
Rathmullen.	51 20	108 57		17.8	— 2.2	26	54.0	7	—22.0	1	19.6	1.37	+0.61	0.56	12	19		
Swift Current.	50 20	107 45	2439															
N. Saskatchewan River																		
Battleford.	52 41	108 20	1620	16.7	+ 3.6	22	52.0	31	—28.0	1	22.1	0.30	—0.36	0.30	1	30		
Lloydminster.	53 18	110 0																
Luseland.	52 5	109 34		13.9	—	3	48.5	31	—29.0	1	19.5	0.35	—	0.15	3	28		
Onion Lake.	53 52	109 59																
Prince (Meota).	51 0	108 20	1700															
Scott (Ex. Farm).	51 59	109 30		11.1	—	4	46.0	31	—35.6	1	22.6	0.23	—	0.10	3	28		
St. Walburg.																		
Waseca.	53 6	109 29		11.2	—	5	43.0	29	—33.0	1	23.6	0.12	—	0.05	3	28	1	
The Saskatchewan Forks																		
Chagones (Star City).	52 32	104 13																
Duck Lake.	52 54	106 20																
Melfort.	52 47	104 30		6.8	—	4	45.0	28	—33.0	1	28.9	0.55	—	0.30	3	28	1	
Prince Albert.	53 10	106 0	1432	9.2	— 3.1	27	49.5	8-31	—34.0	1	28.3	1.20	+0.17	0.60	6	25		
Rosthern.	52 40	106 20	1657	4.2	—	3	41.1	8	—33.8	1	25.0	0.35	—	0.20	3	28		
Saskatoon.	52 15	106 30	1571	8.4	— 4.8	15	41.0	31	—32.3	1	23.4	0.25	—0.34	0.10	4	27		
Lower Saskatchewan River																		
Cumberland House.	53 56	102 16																
Lost River.	53 17	104 21		0.6	—	—	40.0	30	—36.0	1	26.3							
MANITOBA—																		
Qu'Appelle and Assiniboine Rivers																		
Awenne (St. Albans).	49 42	99 33	1180	9.5	— 3.8	26	46.0	28	—29.0	2	26.5	0.97	+0.10	0.25	15	16	1	
Boissevain.	50 25	101 1	1703															
Brandon.	49 51	99 57	1176	6.8	— 8.4	26	46.4	30	—29.7	2	24.2	0.50	+0.36	0.30	2	29		
Carberry.	49 52	99 20	1258															
Carman.	49 31	98 0	872															
Cypress River.	49 33	99 3	1232															
Hillview.	49 55	100 33	1400	4.9	— 8.3	27	38.0	28-31	—32.0	1	23.4	0.70	—	0.30	4	27		
Minnedosa.	50 15	99 50	1699	7.1	— 7.8	30	44.0	30	—29.4	2	24.4	0.38	—0.42	0.16	11	20		
Niineton.	49 24	98 38	1363	12.2	—	2	50.0	31	—24.0	2	26.9							
Ninga.	49 14	99 51	1649	8.5	—	3	42.0	30-31	—25.0	2	21.5							
Pierson.	49 11	101 5	1531															
Pipestone.	49 34	100 58	1400															
Portage la Prairie.	49 57	98 17		7.7	— 7.2	26	42.0	29	—27.0	3	22.0	0.85	+0.15	0.30	5	26		
Portage la Prairie (2).	49 56	98 17																
Russell.	50 59	101 20		2.3	—15.3	20	49.0	29	—36.0	1	23.1							
Souris.				9.3	—	1	44.6	29	—23.0	20	30.2	0.70	—	0.40	2	29		
Trerherne.	49 36	98 40	1212	9.7	— 3.6	18	45.0	31	—24.0	2	22.6	0.87	—	0.35	9	22		
Virde.	49 51	100 55	1444															
The Red River																		
Almasippi.	49 14	99 20		9.3	— 9.2	11	45.0	31	—31.0	2	24.4	0.80	+0.05	0.30	4	27		
Mordee.	49 11	98 6	978	9.6	—10.5	11	47.0	30	—25.0	2	20.7	1.50	+0.40	0.50	4	27		
Oak Bank.	49 57	96 42	800	8.0	— 7.6	18	44.7	31	—30.0	2	21.6	0.90	+0.37	0.40	4	27		
Stony Mountain.	50 40	97 14	803	6.3	— 7.4	31	41.0	31	—34.0	2	28.1	0.35	—0.66	0.10	4	27		
Winnipeg.	49 53	97 7	760	9.7	— 5.0	39	46.4	31	—28.7	2	23.6	0.36	—0.59	0.16	10	21	2	





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STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION				Days with 01. or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	
				Mean.	Difference from average.	Yr's Observations.	Highest.	Lowest.	Date.	Amount.	Difference from Average.	Heaviest fall in month.						
ONTARIO—Continued—																		
West-Central Counties																		
Alton.....	43 51 80	5	1250	25.9	+ 0.8	27	61.2	21	-14.0	7	22.0	4.66	+2.71	1.25	11	20	..	2
Brantford.....	43 10 80	21	750	32.7	+ 5.0	33	70.0	14	- 5.0	6	19.7	4.17	+2.43	1.46	9	22	..	..
Elora.....	43 41 80	24	1274	28.0	+ 3.6	17	64.0	14	-10.0	8	17.5	4.62	+3.01	1.25	14	17	..	..
Guelph.....	43 33 80	16	1050	31.2	+ 4.9	25	66.6	14	- 2.0	7-8	20.0	1.75	-0.08	0.50	9	22	..	..
Listowel.....	42 50 81	13	803	27.4	+ 6.0	15	62.0	14-21	-11.0	4	20.2	5.64	+1.56	1.11	10	21	..	..
London.....	42 50 81	13	803	31.9	+ 2.0	30	67.0	14	- 6.5	7	21.0	5.81	+2.99	1.34	19	12	..	1
Paris.....	43 12 80	25	840	32.8	+ 2.4	24	70.0	14	- 8.0	8	21.6	6.14	+3.62	1.60	14	17	..	..
Stratford.....	43 23 81	0	1191	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Woodstock.....	43 8 80	47	980	31.0	+ 2.6	38	66.2	14	- 5.2	7	19.3	4.07	+2.14	0.66	15	16	..	..
Lake Ontario Counties																		
Agincourt.....	43 47 79	16	590	36.1	+ 2.2	19	63.4	20	- 6.0	7	16.5	3.57	+1.31	0.77	18	13	..	1
Aurora.....	43 57 79	24	886	27.2	—	5	61.0	24	- 8.5	6	18.4	4.50	—	1.36	9	22	..	4
Hamilton.....	43 16 79	54	303	33.0	+ 2.8	38	67.0	20	- 1.0	7	13.9	0.75	-2.35	0.30	4	27	..	..
Oshawa.....	43 53 78	52	331	30.7	—	4	62.0	15	- 7.0	7	16.3	3.05	—	1.33	7	24	..	..
Toronto.....	43 40 79	24	350	33.3	+ 1.7	62	61.2	24	- 1.0	7	17.2	4.08	+1.88	0.98	18	13	..	2
Toronto Is. (Lakeside Home)	43 40 79	24	350	42.3	—	7	60.0	20	- 3.0	7	16.2	..	..	..	..	..	..	..
Uxbridge.....	44 5 79	8	886	29.3	—	9	61.0	14-24	- 9.0	7	15.7	3.45	—	0.80	12	19	..	1
Wexford.....	43 44 79	17	555	29.1	—	1	59.0	24	- 8.0	7	16.3	3.57	—	0.86	10	21	..	..
East-Central Counties																		
Bancroft.....	45 1 77	50	..	24.7	+ 3.0	24	57.0	24	-21.0	4	22.7	—	—	—	..	..	..	1
Haliburton.....	45 1 78	28	1050	25.4	+ 0.7	34	58.0	24	-19.0	5	24.9	..	..	..	..	..	..	..
Kimberly.....	44 45 78	38	920	22.3	- 0.5	14	58.0	24	-26.0	4	24.2	3.67	+1.54	1.12	14	17	..	..
Lakefield.....	44 25 78	15	850	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lindsay.....	44 20 78	45	872	28.3	+ 3.5	34	60.6	24	-10.5	7	19.6	3.35	+0.98	0.80	13	18	..	4
Norwood.....	44 30 77	29	575	27.7	—	1	61.0	21	-15.0	8	18.0	4.82	—	0.90	15	16	..	..
Peterboro.....	44 17 78	19	722	29.4	+ 3.9	43	63.0	14	-10.0	7-8	19.8	2.59	-0.01	0.86	7	24	..	..
Ursa.....	44 54 78	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
QUEBEC—																		
Middle St. Lawrence																		
Brome.....	45 10 72	36	678	29.0	+ 5.3	32	63.0	21	-10.0	8	17.0	5.81	+3.99	1.25	10	21	..	..
Cap Rouge.....	46 46 71	18	..	21.9	—	2	52.0	22-25	-14.9	8-9	17.6	5.10	—	0.71	18	13	..	1
Cedars.....	45 55 71	21	896	25.6	—	1	66.0	23	- 5.0	4	18.7	3.54	—	0.58	12	19	..	..
D'Iseron.....	45 55 71	21	896	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
River Desert (Bark Lake).	45 30 73	35	817	23.0	—	1	60.0	24	-24.0	7	29.3	3.26	—	1.36	12	19	..	..
Montreal.....	45 40 73	35	623	28.6	+ 2.7	35	62.3	21	- 4.6	7	15.1	6.45	+2.54	1.10	17	14	..	1
Quebec.....	46 48 71	13	296	25.6	+ 2.6	38	56.5	21	-12.2	8	15.4	5.48	+2.22	0.82	21	10	..	2
St. Anne de Bellevue	45 27 73	59	..	26.6	—	6	61.8	21	- 3.0	8	15.2	3.74	—	0.85	13	18	..	..
Shawinigan Falls	46 34 72	43	..	18.3	—	10	50.0	20-31	-29.0	8	22.2	4.10	—	0.60	13	18	..	2
Sherbrooke.....	45 32 72	5	620	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lower St. Lawrence & Gulf																		
*Anticosti, E. Pt.....	49 6 61	42	30	23.6	+ 3.4	28	37.0	22	- 5.0	8	—	2.68	—	0.65	8	23	..	7
*Anticosti, S.W. Pt.....	49 6 61	42	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Anticosti, W. Pt.....	49 6 61	42	30	21.9	+ 0.3	33	39.0	30	0.0	..	..	3.11	-1.91	0.40	15	16	..	1
*Bicquet.....	48 25 68	53	..	25.6	- 0.2	32	50.0	31	0.0	8	—	2.80	—	0.80	10	21	..	3
*Cape Chatte.....	49 6 66	45	..	23.7	+ 0.2	30	48.0	24	5.0	4-8	—	1.65	—	0.60	6	25	..	..
*Cape Magdalen.....	49 16 65	20	93	24.8	+ 2.8	31	52.0	31	0.0	5-8	—	1.99	—	0.50	11	20	..	3
*Father Point.....	49 31 68	19	20	26.0	+ 3.9	36	58.0	22	- 2.0	8	15.0	2.53	-0.36	0.50	10	12	..	2
*St. Anne de la Pointe.....	47 22 70	2	65	23.8	—	..	61.0	21	- 6.0	8	17.7	4.17	—	0.70	12	19	..	..
Lake St. John																		
Chicoutimi.....	48 25 71	5	150	21.4	—	34	—	—	—	—	—	2.61	-0.57	0.80	14	17	..	1
Chicoutimi (2).....	47 39 72	15	1333	19.3	—	3	54.0	22	-10.0	4	9.1	..	..	..	..	..	..	..
Lake Edward.....	47 27 72	48	520	..	..	..	52.6	21	-37.2	7	24.5	3.01	—	0.70	11	20	..	1
La Tuque.....	48 54 72	15	360	14.9	—	2	49.0	22	-27.0	4	24.6	3.18	—	1.21	15	16	..	2
*Mistassini.....	48 31 72	13	352	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Roberval.....	48 31 72	13	352	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The Northwestern Districts																		
Abitibi.....	48 33 79	22	..	14.9	0.0	34	47.0	30	-87.0	7	22.2	2.60	-0.58	0.70	10	20	..	..
Manouan Crossing.....	47 54 73	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Weymontachtinge (Dam A)	45 12 75	43	..	15.7	—	2	53.5	20	-36.0	4	23.5	2.41	—	0.52	9	22	1	1
White Shore Lake.....	45 12 75	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
The North Shore																		
Clarks City.....	50 10 66	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NEW BRUNSWICK—																		
Chatham.....	47 3 65	29	21	28.8	+ 3.4	39	64.0	21	-11.5	8	20.0	4.45	+1.32	0.87	18	13	..	2
Dalhousie.....	48 4 66	22	39	22.7	+ 1.5	32	48.0	21	-13.0	5	17.3	2.10	-0.79	0.90	6	25	..	..
Fredericton.....	45 57 66	36	164	30.3	+ 4.3	41	60.0	21	- 9.0	8	18.0	6.00	+1.94	1.04	18	13	..	1
Moncton.....	46 9 64	45	50	31.5	+ 2.9	16	66.0	31	- 6.0	7	21.3	5.60	+3.39	1.30	11	20	..	..
*Point Lepreau.....	45 4 66	28	30	32.6	+ 3.9	35	43.0	15-31	3.0	8	—	5.25	+0.87	1.77	10	21	..	10
St. John.....	45 17 66	4	70	33.0	+2.5	40	52.3	31	- 4.8	8	12.9	7.60	+3.53	1.15	19	12	..	1
St. Stephen.....	45 11 67	16	35	31.9	+ 3.5	16	58.0	19-25	-20.0	8	18.6	3.87	-0.06	1.30	11	20	..	4
Sussex.....	45 28 65	38	96	32.6	+ 5.9	16	63.0	21	-10.0	8	18.3	7.26	+2.98	1.95	7	24	..	..
Williamsburg.....	45 23 67	15	..	25.9	—	1	54.0	20	-13.0	8	17.2	6.05	—	1.50	14	17	..	..

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE								PRECIPITATION			Days with, 01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs							
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average	Haviest fall in month												
NOVA SCOTIA—																										
Advocate	45 38	61 59	50	32.4	—	1	60.0	29-31	— 5.0	4	17.5	7.28	—	1.84	10	21	..	5								
Antigonish	45 38	61 59	50	33.1	—	3	69.0	22	— 5.0	9	21.0	—	—	—	..	..	..	..								
Halifax	44 39	63 36	88	35.2	+ 3.7	39	69.7	21	— 2.9	8	17.0	6.57	+1.23	1.08	21	10	..	..								
Kentville	45 3	..	40	31.8	—	2	63.0	21	— 1.0	8	17.5	3.65	—	0.90	16	15	..	..								
Merigish	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..								
New Germany	..	..	..	34.6	—	1	68.0	21	5.0	8	16.1	7.03	—	1.72	11	20	..	..								
Parrsboro'	45 23	64 19	40	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..								
Port Hastings	45 39	61 22	45	25.2	— 2.7	22	48.0	26	8.0	4	9.7	3.00	—	1.35	4	27	..	..								
*Sable Island, E. Pt.	43 58	59 46	25	35.9	+ 5.1	30	46.0	31	30.0	8	—	2.71	— 0.44	1.00	9	22	..	13								
Sable Island (Main Station)	43 57	60 6	25	34.5	+ 0.9	23	47.0	21-22	18.0	8	11.7	3.93	— 1.02	0.64	17	14	..	10								
Sydney	46 10	60 10	35	32.4	+ 3.9	39	58.5	21	— 2.5	5	17.2	4.69	— 0.07	0.56	18	13	..	1								
Truro	45 22	63 18	77	33.9	+ 5.7	39	62.8	20	— 1.0	8	17.5	6.15	+ 2.34	1.03	22	9	..	..								
*Whitehead	45 15	61 8	20	31.5	+ 3.1	31	43.0	22	9.0	8	—	3.66	— 0.26	0.91	9	22	..	10								
Windsor	44 59	64 6	90	34.9	+ 6.4	10	69.5	22	4.0	8	14.7	5.20	+ 1.56	0.66	14	17	..	1								
Wolfville	45 7	64 20	..	34.6	+ 4.9	12	64.1	20-21	2.8	8	16.8	5.19	+ 1.12	0.82	19	12	..	..								
Yarmouth	43 50	66 2	65	36.2	+ 3.9	32	55.2	20	8.0	8	13.0	5.79	+ 0.79	1.07	19	12	..	1 7								
P. E. ISLAND—																										
Charlottetown	46 14	63 10	38	31.0	+ 3.9	38	54.0	21	— 2.0	8	14.9	5.13	+ 2.03	0.62	17	14	..	4								
Charlottetown (Exp. Farm)	46 14	63 7	75	30.8	—	3	60.0	21	— 4.0	8	16.6	4.66	—	0.64	17	14	..	..								
Hamilton	46 25	63 48	..	29.2	+ 3.9	15	56.0	22	— 5.0	8	12.7	4.02	—	1.50	8	23	..	..								
NEWFOUNDLAND—																										
*Amour Point	51 28	56 51	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..								
Burin	47 0	55 10	27	30.1	—	5	48.0	17-31	10.0	5-8	18-2	6.50	—	1.02	20	11	..	4								
*Cape Norman	51 38	55 52	..	7.5	—	..	24.0	31	— 9.0	3	—	1.90	—	0.60	6	25	..	..								
Fogo	49 43	54 17	30	19.5	..	..	..	..	..	..	..	..	..	..	..	..	..	..								
*Point Riche	50 42	57 25	35	..	..	30	39.0	16	— 5.0	26	—	1.55	—	0.80	7	24	..	..								
Port aux Basques	47 35	59 10	27	25.5	—	5	43.5	25	2.5	9	12.4	8.08	—	1.95	25	6	..	4								
St. George's	..	..	..	25.9	..	20	50.0	16	— 8.4	5	22.4	5.34	—	0.70	24	7	..	5								
St. John's	47 34	52 42	125	30.0	— 0.5	40	60.0	28	3.0	5	14.0	5.04	+ 0.34	1.00	16	15	..	2								
LABRADOR—																										
North West River	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..								
BERMUDA—																										
Prospect	32 17	64 48	151	65.8	+ 2.7	22	73.8	28	52.6	9	9.4	3.34	— 1.71	0.86	11	20	..	..								

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING MARCH, 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days	Heaviest Fall in Month.	Date	
BRITISH COLUMBIA—										
Alkali Lake	0.02	1	29	0.02	4	3.5	1	3.5	17	
Aonis (Canoe Point)	0.17	4	22	0.07	5	5.1	5	1.5	2-16	
Armstrong	2.23	9	22	0.50	29					
Beaver Lake	7.86	7	21	1.72	29	2.3	3	1.3	18	
Coquitlam										
Cariboo Road No 141.										
Denman's Island	1.64	8	23	0.79	27					
Ferguson						46.5	9	12.0	16	
Goldstream Lake	4.68	11	19	1.22	29	2.5	1	2.5	19	
Hydraulic	2.09	5	25	0.97	28	19.8	8	8.0	16	
Hornby Island						1.1	1	1.1	23	
Ivernere						3.5	1	3.5	18	
Jordas River	4.69	18	9	0.89	16	3.0	4	1.5	19	
Jordas River (Bear Creek)	8.07	12	15	2.35	17	11.0	4	4.0	29	
Little Qualicum	1.80	8	23	0.50	27					
Lumby	0.03	1	25	0.03	5	5.0	5	2.9	3	
Monte Creek										
Nana Harbour	7.52	9	19	1.26	30	11.0	3	5.8	26	
Rock Creek	0.22	2	27	0.16	12	1.5	2	1.0	15	
Shawnigan Lake	2.62	13	16	0.66	20	1.5	2	1.0	12	
Wycliffe	1.87	5	24	0.40	16-23	24.0	2	18.0	11	
ALBERTA—										
Bardo						3.5	2	2.0	17	
Bismark						7.3	3	6.0	17	
Bruderheim										
Bitters Lake						5.8	7	2.0	16	
Brooks						8.0	7	2.0	17	
Beaver Mines						43.1	7	21.0	18	
Coleman						24.5	9	11.0	18	
Cowley						17.7	10	7.0	18	
Caldwell	0.01	1	22	0.01	28	27.7	9	4.8	18	
Chreshelm						7.9	4	4.0	18	
Dorenes (Bashaw)						6.0	2	4.0	19	
Dunstable (Five Lakes)	0.07	1	21	0.07	7	3.1	9	1.0	17	
Grassy Lake										
Jumping Pound	0.04	2	26	0.02	2-8	6.8	3	4.0	18	
Loch Sloy										
Lyndon						14.3	3	6.5	18	
Lineham						21.7	3	13.5	18	
La Pearl										
Lethbridge						5.4	7	4.0	13	
Macleod						11.2	5	4.0	11-17	
Mayercroft						13.2	10	5.1	18	
Mountain View						16.0	2	9.0	19	
Nateby										
Nanton						6.0	4	2.0	11-18	
Okotoks										
Pekisko						15.0	7	4.0	17	
Ponoka						12.5	7	3.0	16-18	
Sion										
Seven Persons						5.0	3	2.3	11	
Tilley										
Writing-on-Stone (Coutts)						5.5	4	2.6	12	
Waterton Mills						43.3	6	28.5	18	
SASKATCHEWAN—										
Aberfeldy										
Gull Lake						10.6	7	4.0	7	
Gull Lake (Eks. Swift Cur.)						6.7	8	2.0	19	
Last Mountain										
Maple Creek										
Meadow Lake										
Nashlyn (Kelvinhurst)										
Willow Creek (Battle Cr.)						13.3	6	4.5	18	
MANITOBA—										
Cartwright						7.5	8	2.0	18	
Deloraine										
Norquay (Swan Lake)						6.8	4	3.0	8-18	
Rapid City						7.2	7	2.5	8	
Rose Bank										
ONTARIO—										
Brantford(Bow Park Farm)	3.11	9	15	1.50	24	13.9	7	5.8	3	
Charlton	2.25	10	17	0.84	25	10.0	4	5.0	27	
Deer Park	4.67	5	21	1.75	24	9.0	5	2.0	3-27	
Dutton	3.02	8	14	1.02	24	8.0	9	3.0	3	
Ennisdale										
Fort Frances						22.9	7	8.1	20	
Georgetown	3.18	10	13	0.80	24	9.9	8	4.0	3	
Grantham	4.07	8	18	1.25	25	4.1	5	2.3	4	
Grand Valley	3.65	10	18	1.16	24	6.5	3	2.5	1	
MnCee	4.15	6	24	1.20	13	6.0	1	6.0	3	
Princeton										
Renfrew										
Sydenham	4.30	4	23	2.00	27	6.5	4	3.0	2	
Strathroy	3.28	4	20	1.47	24	24.0	7	6.0	6	
Watford										
Watport						16.5	9	6.0	9	
Westminster	4.51	4	24	2.62	26	11.0	3	5.0	27	
Wooler										
Wesley										
Watteawyl	1.30	4	21	1.01	24	11.5	6	3.0	8	
Warton	1.62	5	21	0.55	31	17.0	5	8.0	4	
QUEBEC—										
Bark Lake (Riviere Desert)										
Kipnwa Dam										
Lucerne										
Perkins Mills	2.17	4	21	1.10	31	19.5	6	6.0	28	
Quinzs Dam	0.54	2	26	0.34	31	7.3	3	4.3	18	
Timeskaming	1.89	5	20	0.72	31	8.3	6	2.8	8	
NEW BRUNSWICK—										
Point Escuminac	0.77	5	21	0.20	21-27	22.7	5	8.2	7	
NOVA SCOTIA—										
Big Mushamush Lake (Ma-										
hooon)										
Kentville	6.24	12	10	1.15	27	22.0	9	6.0	27	
Milton	9.60	6	23	2.63	16	5.8	2	3.3	5	
Mushamush River (Mahone)										
Nappan	5.30	10	17	2.04	27	11.0	4	4.0	9	
South Alton										
White Rock	1.76	6	24	0.72	21	3.8	1	3.8	11	



a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud.		DIRECTION OF WIND FROM										VELOCITY OF WIND				
				Mean reduced.	Highest.	Lowest.	Range.				Mean.	No. of days completely clouded.									Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.	
													N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					C.
BRITISH COLUMBIA—																									
Atlin	59 35	133 38	2240	30.04	30.73	29.01	1.72	—	6	14	7	2	3	5	22	1	2	3	18	62					
Barkerville	53 2	121 35	4880	29.97	30.40	29.23	1.17	—	6	12	2	1	1	2	0	11	0	45	62						
Kamloops	50 42	120 29	1245	30.04	30.47	29.50	0.97	—	6	12	2	2	10	0	7	0	24	0	11	62					
a Nanaimo	49 10	123 37	123	29.28	30.41	29.45	0.96	—	8	0	1	1	17	0	3	3	17	2	62						
Prince Rupert	54 18	130 18	170	29.96	30.38	28.93	0.45	83	20	0	21	5	4	1	1	1	1	27	62						
Triangle Island	50 52	129 5	680																						
a Tranquilla	30 41	120 20																							
Vancouver	49 17	123	136	30.09	30.33	29.62	0.91	78	6	12	0	4	23	12	3	4	5	5	62						
Victoria	48 24	123 19	185	30.09	30.54	29.61	0.93	82	6	9	0	10	13	5	10	11	10	5	62	8.2	40 29SW				
YUKON—																									
Dawson	64	4 139	2000																						
ALBERTA—																									
Banff	51 10	115 34	3342	30.06	30.51	29.29	1.22	65	6	7	2	8	2	1	0	31	2	0	16	62					
Calgary	50 2	114	2	30.03	30.41	29.25	1.16	82	4	6	5	8	2	7	3	3	23	7	62	5.7	22 30NW				
Edmonton	53 33	113 30	2158	30.03	30.49	29.12	1.37	86	5	7	5	11	2	6	3	12	13	8	62	6.3	22 30NW				
Medicine Hat	50 1	110 37	2081	30.03	30.53	29.33	1.20	82	7	8	4	3	3	4	5	4	17	7	4	93					
SASKATCHEWAN—																									
Battleford	52 41	108 20	1620	30.06	30.57	29.26	1.31	97	4	4	3	5	4	12	3	5	12	26	23	93	6.1	28 28NW			
Moose Jaw	50 21	105 35	1759	30.11	30.65	29.43	1.22	91	7	17	5	8	3	0	7	17	14	22	93						
Prince Albert	53 10	106 0	1432	30.05	30.60	29.38	1.22	91	7	12	7	3	3	2	5	8	8	4	22	62					
Qu'Appelle	50 30	103 47	2115	30.04	30.36	29.30	1.26	84	4	7	10	5	4	4	2	16	7	14	—	62	10.0	26 16NW			
Swift Current	50 20	107 45	2349	30.04	30.53	29.35	1.18	78	6	7	2	12	0	3	6	29	11	16	14	93					
MANITOBA—																									
a Wenne (St. Alban's)	49 42	99 33	1180																						
Le Pas	50 15	99 50	1699	30.08	30.71	29.34	1.13	95	5	7	6	11	14	1	1	7	16	24	13	53					
a Wenne	53 49	101 15	860	30.11	30.71	29.31	1.40	98	5	4	7	5	3	7	4	12	10	13	1	62	6.0				
Winnipeg	49 53	97 7	760	30.09	30.47	29.36	1.11	92	4	5	20	4	4	8	10	14	12	19	2	93	11.8	32 4NW			
ONTARIO—																									
Cochrane	49 2	81 0	946																						
Guelph	43 33	80 16	650	29.99	30.60	29.18	1.42	86	7	19	10	2	0	3	14	7	6	12	8	62					
Huron	44 23	79 33	687	29.99	30.60	29.18	1.42	86	7	19	10	2	0	3	14	7	6	12	8	62					
Kingston	44 13	76 29	285	30.05	30.75	29.56	1.19	82	8	18	1	13	1	12	7	9	14	5	0	62		31 18SW			
London	42 59	81 38	808	29.99	30.65	29.32	1.33	83	6	13	0	10	3	29	0	11	3	37	0	93					
a Lindsay	44 29	78 45	872	29.02	29.55	28.38	1.17	86	6	12	9	5	3	8	22	22	15	4	60						
Orillia	45 29	82 42	904	30.00	30.69	29.32	1.37	85	7	12	1	2	11	4	3	18	19	5	0	62					
Park Soudan	45 19	80 0	635	29.99	30.66	29.21	1.45	84	7	12	1	5	2	14	6	16	3	10	5	62		52			
Port Arthur	48 28	79 12	644	30.01	30.47	29.10	1.70	83	6	11	28	2	9	0	12	0	15	25	2	93	11.8	52 24NW			
Port Stanley	42 40	81 13	592	30.06	30.69	29.41	1.28	72	6	11	1	6	12	12	0	23	12	20	4	90					
Sarnia	42 41	81 21	656	29.98	30.67	29.06	1.61	85	7	14	5	4	1	15	19	25	4	16	4	93					
Stoneyton	46 9	78 6	537	30.23	30.59	29.13	1.49	95	5	0	0	0	3	2	0	24	0	30	62	5.1	20 21W				
Stoneyton	43 40	79 24	350	30.04	30.70	29.36	1.34	78	6	12	5	7	8	1	3	9	16	12	1	62	16.0	48 21W			
Toronto	43 45	79 24	1352																						
White River	48 35	85 16	2250																						
Woodstock	43 8	80 47	980	29.98	30.70	29.37	1.79	79	7	13	2	5	8	3	10	36	6	23	0	93	13.0	47 21SW			
QUEBEC—																									
Father Point	48 31	68 19	20	29.95	30.68	29.33	1.45	86	8	15	2	4	18	5	7	27	15	14	1	93	19.0	55 22SW			
Montreal	45 57	66 36	164	30.05	30.84	29.14	1.70	84	6	11	2	6	5	11	11	24	23	9	0	93	60				
Quebec	46 45	71 13	294	30.06	30.68	29.35	1.42	81	7	16	2	24	2	1	1	31	31	1	0	93	14.4	58 22SW			
Sherbrooke	45 32	72 5	620																						
NEW BRUNSWICK—																									
Chatham	47 3	65 29	21	30.02	30.82	29.24	1.58	82	6	11	0	2	10	4	2	32	34	9	0	93					
Fredericton	45 57	66 36	164	30.05	30.84	29.14	1.70	84	6	11	2	6	5	11	11	24	23	9	2	93	9.0	36 28NW			
St. John	45 17	66 4	70	30.08	30.86	29.21	1.65	81	6	15	3	3	4	11	13	30	5	21	3	93	15.1	40 7SW			
NOVA SCOTIA—																									
Halifax	44 39	63 36	88	30.10	30.82	29.33	1.49	86	7	11	9	5	3	2	6	8	14	15	0	62	15.5	54 8SW			
Sable Island (MStation)	43 55	60 6	25	30.18	30.81	29.32	1.59	87	7	12	4	1	3	8	11	37	12	17	0	93	50 31SE				
Sydney	46 10	60 10	35	30.10	30.69	29.34	1.55	82	6	12	1	8	4	3	44	7	20	6	83	16.8	41 31SE				
St. John's	46 7	64 20	20	30.07	30.83	29.39	1.44	85	6	12	9	3	2	4	6	13	26	3	1	62	14.6	41 31SE			
Yarmouth	43 50	60 2	65	30.12	30.90	29.19	1.71	84	7	18	6	3	3	6	13	11	7	12	62	14.9	41				
P. E. ISLAND																									
Charlottetown	46 14	63 10	38	30.06	30.79	29.28	1.51	83	7	12	0	3	1	3	10	15	9	11	10	62	9.9	36 7SW			
NEWFOUNDLAND																									
Burin	47 0	55 10	27	30.11	30.64	29.32	1.32	—	—	6	4	0	2	9	3	16	10	18	0	62					
Pogo	49 43	54 17	30																						
Port aux Basques	47 35	59 10	27	30.04	30.57	29.17	1.40	—	9	21	2	4	23	0	2	8	15	7	—	62					
St. George's	48 27	58 31	21	30.09	30.55	29.08	1.47	83	8	17	2	3	14	3	3	16	12	12	0	62					
St. John's	47 34	52 42	125	30.01	30.54	29.16	1.38	68	7	17	2	3	1	8	2	30	6	10	0	62					
BERMUDA																									
St. Peter's	32 13	64 45	16	30.01	30.54	29.31	1.23	—	—	—	—	—	—	—	—	—	—	—	—	93					

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF MARCH, 1913

STATION	DIRECTION OF WIND FROM									Total num- ber Observed values
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing	0	4	3	0	0	4	9	11	0	31
Didsbury	0	2	4	3	5	0	5	12	0	31
Edmonton	6	6	1	2	9	22	8	8	0	62
Halkirk (Emsburg)	0	6	0	4	9	14	0	25	4	62
Hillsgrove	4	4	1	18	0	15	15	15	0	62
Loveland	12	1	2	0	7	0	29	3	8	62
Macleod	9	3	6	4	9	12	15	24	11	93
Paken (Victoria)										
Ranfurly (Waterfield)										
SASKATCHEWAN										
Chaplin	3	9	1	1	0	2	7	8	0	31
Crescent Lake	5	4	2	3	8	11	17	11	1	62
Estevan	2	2	3	0	5	7	3	9	0	31
Fort Qu'Appelle	3	4	6	3	4	5	25	4	8	62
Grenfell (Brownhill)	1	7	1	9	4	22	5	13	0	62
Indian Head	12	13	3	3	8	23	12	15	4	93
Larchmount (Glenbrian)										
Moosomin										
Muenster (St. Peter's Monastery)	5	5	2	2	7	17	14	10	0	62
Onion Lake	0	7	0	5	0	3	3	13	0	31
Pense (Gatesgarth)	0	2	0	2	0	4	10	13	0	31
Waseca										
MANITOBA										
Berens River	7	0	5	5	25	3	7	10	0	62
Brandon	5	24	2	2	1	23	7	12	17	93
Hillview	4	3	8	4	0	28	7	39	0	93
Moose Horn Bay (Aitkensville)	12	11	4	6	7	4	3	12	6	62
Morden	18	4	0	3	2	7	16	10	2	62
Oak Bank	21	0	0	2	5	10	10	12	2	62
Stony Mountain	9	14	0	3	8	7	11	10	0	62
ONTARIO										
Agincourt	1	6	14	3	1	34	17	16	1	93
Alton	6	1	7	5	33	10	27	4	0	93
Beatrice	3	1	0	6	22	11	7	21	22	93
Birmam	7	4	3	6	15	9	5	12	1	62
Clinton	0	1	6	2	25	5	12	10	0	62
Cottam	18	2	2	7	9	12	12	0	0	62
Gravenhurst	0	3	6	20	15	10	18	7	14	93
Lindsay	9	5	3	8	22	22	5	15	4	93
North Bruce										
Orillia	1	0	1	1	13	9	6	0	0	31
Owen Sound										
Point Clark	7	4	6	10	19	6	8	2	0	62
Port Dover	6	2	4	2	2	2	9	4	0	31
Stoney Creek	1	9	13	1	0	36	22	11	0	93
Uplands										
Wexford	1	0	1	4	1	5	5	8	6	31
QUEBEC—										
Abitibi	18	7	12	3	27	2	20	4	0	93
Anticosti, W. Pt.	12	3	17	6	23	3	10	19	0	93
Anticosti, Heath Point	6	4	9	1	2	28	7	26	10	93
Bicquet	4	21	2	1	22	21	9	11	2	93
Brome	3	0	6	0	35	11	37	1	0	93
Cape Chatte	5	1	22	0	0	8	35	0	22	93
Cape Magdalen	1	6	6	9	13	5	2	38	13	93
Cap Rouge	6	10	0	0	0	0	0	15	0	31
Chicoutimi	0	39	0	9	0	5	0	24	16	93
Clarke City										
Manouan Crossing										
White Shore Lake										
NEW BRUNSWICK—										
Dalhousie	5	0	9	6	0	0	10	0	0	50
Moncton	1	4	0	2	6	2	4	11	1	31
Pt. Lepreaux	6	1	12	0	3	11	29	16	0	78
Sussex	0	1	0	1	1	6	3	5	14	31
NOVA SCOTIA—										
Kentville	1	1	1	3	4	11	7	3	0	31
Parishore										
Port Hastings	0	1	0	10	0	16	0	2	0	29
Sable Island, E. Pt.	2	1	0	12	0	41	0	37	0	93
Truro										
Whitehead	5	3	11	1	22	36	7	8	0	93

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
MARCH 1913.

STATION.	HOURS ENDING															
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria.....					.11	.25	.37	.38	.47	.53	.51	.50	.49	.32		
Simon Arm.....				.02	.28	.46	.54	.52	.52	.57	.58	.54	.39	.23	.01	
Vancouver.....				.07	.20	.27	.36	.37	.42	.44	.47	.51	.43	.39	.12	
Agassiz.....				.01	.17	.35	.39	.40	.41	.39	.42	.40	.34	.17		
Tranquilla.....																
Summerland.....				.10	.29	.47	.58	.65	.64	.61	.57	.49	.47	.31	.05	
Kamloops.....					.24	.49	.56	.61	.70	.67	.63	.69	.46	.20		
Harper's Ranch.....					.25	.52	.48	.53	.57	.54	.54	.48	.27	.02		
Edmonton.....				T	.17	.41	.58	.54	.56	.52	.54	.53	.53	.17		
Lethbrida.....				.06	.37	.55	.64	.66	.55	.55	.51	.52	.47	.19	.01	
Lacombe.....				.02	.21	.50	.60	.63	.63	.62	.53	.49	.52	.22		
Medicine Hat.....																
Fort Dunvegan.....					.02	.31	.47	.51	.42	.41	.42	.46	.33	.03		
Fort Vermilion.....																
Battleford.....					.09	.39	.55	.58	.68	.74	.68	.67	.69	.34		
Indian Head.....					.03	.18	.44	.51	.54	.47	.54	.50	.50	.16	.02	
Moosejaw.....																
Scott.....				.15	.37	.52	.60	.70	.63	.61	.66	.60	.24	.01		
Rosthern.....					.13	.41	.57	.63	.67	.58	.63	.64	.59	.33		
Brandon.....					.20	.45	.55	.62	.67	.66	.62	.57	.41	.06	.02	
Winnipeg.....					.06	.38	.56	.60	.62	.61	.57	.56	.47	.34	.01	
Haileybury.....				.06	.23	.27	.33	.46	.46	.40	.32	.34	.26	.20	.03	
Woodstock.....				.01	.26	.38	.47	.47	.49	.49	.48	.41	.09			
Lindsay.....					.12	.27	.37	.39	.46	.42	.43	.34	.11			
Barrie.....																
Toronto.....					.11	.32	.42	.40	.51	.46	.40	.51	.51	.33	.07	
Kingston.....				.01	.06	.18	.27	.27	.34	.40	.40	.34	.26	.07		
Ottawa.....				.01	.19	.34	.37	.38	.35	.39	.38	.41	.37	.24	.03	
Montreal.....				.01	.21	.36	.41	.38	.40	.37	.39	.35	.34	.21	.01	
Cap Rouge.....					.03	.15	.23	.33	.34	.31	.29	.25	.18	.07		
Quebec.....					.11	.25	.32	.37	.36	.38	.38	.34	.25	.10		
Ste. Anne de la Pocatiere.....			.01	.24	.41	.43	.40	.43	.47	.45	.39	.24	.12			
Sherbrooke.....																
Fredericton.....				.06	.38	.39	.43	.42	.44	.43	.38	.37	.37	.32	.07	
Charlottetown.....					.06	.30	.47	.52	.49	.54	.63	.47	.33	.12		
Napan.....				T	.17	.37	.50	.58	.61	.64	.57	.46	.37	.23	.26	
Wolfville.....				.02	.26	.48	.58	.56	.57	.54	.54	.48	.45	.27	.06	



## SUMMARY OF SUNSHINE RECORDS

	Victoria.	Salmon Arm.	Vancouver.	Agassiz.	Tranquille.	Summerland.	Kamloops.	Harper's Ranch.	Edmonton.	Leithbridge.	Lacombe.	Medicine Hat.	Fort Duval.	Fort Vermilion.	Battleford.	Indian Head.	Moose Jaw.	Neely.	Rosburn.	Brandon.	Winnipeg.	Halifax.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Ste. Anne de la Pointe.	Sherbrooke.	Fredericton.	Charlottetown.	Napan.	Wolville.
Registered duration in hours.....	122	144	126	107	.....	162	162	136	141	157	154	.....	105	.....	168	121	.....	157	160	149	149	104	110	90	.....	128	80	107	107	68	89	111	.....	124	119	140	149
Percentage of possible duration.....	33	39	33	29	.....	44	44	35	38	43	42	.....	29	.....	46	33	.....	43	44	41	40	28	30	25	.....	35	22	29	31	18	24	30	.....	34	32	38	40
Difference from average.....	6	—	—	2	.....	—	—	—	—	—	—	.....	—	.....	—	0	3	.....	—	3	8	—	3	16	.....	6	19	11	14	—	17	—	.....	8	—	—	—
Maximum percentage in one day.....	77	82	92	83	.....	89	81	77	75	83	82	.....	6	.....	78	79	.....	78	78	83	93	68	71	.....	82	80	87	92	63	76	94	.....	89	76	82	87	
Date of maximum.....	31	21	9	.....	25	8	9	9	21	9	9	.....	13	.....	24	5	.....	23	5	1	1-5	7	14	7	.....	5	28	22	22	7	17	10	.....	8	23	8	29
Number of days completely clouded.....	8	6	7	14	.....	5	5	5	2	5	6	.....	6	.....	3	7	.....	3	5	5	4	5	6	7	.....	5	12	11	10	13	14	8	.....	14	11	10	8

*Thunder Recorded:*

- 1.
- 2.
3. Toronto.
- 4.
- 5.
6. Sion.
- 7.
- 8.
- 9.
10. Sion, Sydney.
- 11.
- 12.
13. Midland.
14. Beatrice, Stony Creek, Agincourt, Copper Cliff, Rutherglen, Birnam, Huntsville, Bruce Mines, Elora, Kinmount, Clinton, Wexford, Uxbridge, Baneroff, Renfrew, Ronville, Madoc, Montreal River, Lucknow, Brantford, Haliburton, White Shore Lake, Emsdale, Georgetown, Westport, Parry Sound, Kingston, Stonecliff.
15. Cottam, Almonte, Bloomfield, Renfrew, Madoc, Orillia, Brome, Chicoutimi, Mistassini, Shawinigan Falls, Lake Edward, Cap Rouge, Westport, Deer Park, Quinze Dam, Perkins' Mills, Chicoutimi West, Quebec, Montreal, Parry Sound, Ottawa.
- 16.
- 17.
18. Waneta.
19. Wiarton.
20. North Gower, Midland, Almonte, Madoc, Haliburton, Parry Sound, Port Arthur.
21. Madoc, Brome, Shawinigan Falls, Fredericton, Quebec, Ottawa.
- 22.
23. Birnam, Cottam, Haliburton, Toronto.
24. Rutherglen, Bruce Mines, Elora, Clinton, Lucknow, Brantford, Haliburton, Brome, Emsdale, Georgetown.
- 25.
- 26.
27. Quesnel, St. John.
- 28.
29. Alberni, Barkerville.
30. Birnam, Alberni.
- 31.

*Auroras Recorded:*

1. Atlin IV.
2. Winnipeg III.
3. Clemens IV., Waitefield II.
4. Mistassini III., Crescent Lake IV.
- 5.
6. Aitkensville IV., Schreiber, Atlin III.
- 7.
- 8.
9. Clemens IV.
- 10.
- 11.
- 12.
13. Aitkensville II.
- 14.
- 15.
- 16.
17. Mistassini IV.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
29. Kakabeka Falls III., Aitkensville IV., Aweme II., White Shore Lake IV., Rapid City II., Melfort IV., Port Arthur II.
30. Crescent Lake IV., Clemens IV., Waitefield II., Atlin IV.
31. Waseca, Waitefield IV.

## FORECASTS FOR MARCH 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1371. These were divided as follows:—

District.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	82	68	6	8	56.6
Saskatchewan.....	85	66	13	6	55.3
Manitoba.....	89	71	9	7	57.0
Lake Superior.....	106	87	19	7	54.4
Lower Lake Region.....	128	106	18	4	59.8
Georgian Bay.....	127	99	20	8	55.8
Ottawa Valley.....	118	91	18	9	54.7
Upper St. Lawrence.....	118	96	14	8	57.3
Lower St. Lawrence.....	130	93	20	17	79.2
Gulf.....	130	98	18	13	53.1
Maritime Provinces West.....	129	104	18	7	57.6
Maritime Provinces East.....	129	95	22	12	52.2
Total.....	1371	1070	195	106	55.2

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
April 21st, 1913.



# DEPARTMENT OF MARINE AND FISHERIES, CANADA.

## METEOROLOGICAL SERVICE.

# Monthly Weather Review

VOL. XXXVII.

APRIL, 1913

No. 4

### INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

### TEMPERATURE

#### BRITISH COLUMBIA.

Light frosts were recorded on Vancouver Island on the 1st, 2nd and 29th, while in the interior of the Province much sharper frost was recorded on 5 or 6 days. The mean temperature of the month, however, did not differ much from average, the departures from average varying from minus 1° to plus 1°.

#### THE WESTERN PROVINCES.

In northeastern Saskatchewan and southern Manitoba the month was much warmer than usual, positive departures from average ranging from 7° to 10°. In Alberta and southwestern Saskatchewan the differences from average varied between 3° and 7°. The excess over average temperature was due to a period of unusually warm weather which began on the 11th and lasted till the 23rd. During this interval maximum temperatures exceeded 80° on one or two days. The month ended however with a sudden change to colder conditions which were accompanied in many sections of the country by sleet and snow storms.

#### ONTARIO.

Over the whole Province of Ontario the average April temperature was exceeded by 3° or 4°. About the 15th there began a period of warm weather which lasted till the end of the month and during which maximum temperatures ranged between 60° and 85°. On the morning of the 20th, however, sharp frost was recorded in all sections.

#### QUEBEC.

Except in the districts along the north shore of the Gulf of St. Lawrence the average temperature was exceeded by about 3°. Temperature conditions were similar to those which obtained in Ontario except that the minimum temperatures were considerably lower in all districts.

#### MARITIME PROVINCES.

In the Maritime Provinces, also, excess over average was about 3°. The first ten days were very cool, 15° to 20° of frost having been recorded on the 8th. From the 12th to the close of the month much warmer conditions obtained, maximum temperatures exceeding 80° on the 25th and 26th.

## PRECIPITATION.

The total precipitation for the month of April was considerably less than the average in British Columbia, Alberta, Saskatchewan, Manitoba, the Rainy River and Thunder Bay Districts of Ontario, and in the Province of Quebec from Quebec City to the Ocean. In New Brunswick and Cape Breton Island there was also a considerable deficiency, but over the greater part of Nova Scotia a large excess. With few local exceptions, the average precipitation was well exceeded in Ontario.

## HIGH AREAS.

Nine areas of high pressure were charted. Two first appeared in Northern Manitoba, one in Southern Saskatchewan, one on the west and one on the south shores of Hudson's Bay, three on the north, and one on the Middle Pacific States coasts respectively. The areas in nearly all cases were quite feeble, while five passed either over to the northward of the Great Lakes, the remaining four travelling far to the southward.

## LOW AREAS.

Eleven areas of low pressure were charted. Four first appeared on the northern British Columbian coast, four in the West Pacific States, one in the Gulf of Mexico, one in North Carolina, and one off the Newfoundland coast. The general track of the areas was across the continent well to the northward to the Atlantic Ocean; they were not as a rule very energetic, and as a consequence few gales or high winds were experienced during the month.

## ATMOSPHERIC PRESSURE.

The results obtained at the Telegraph Reporting Stations, as indicative of conditions throughout Canada, shew that the mean atmospheric pressure for April was above the average from Lake Superior to the Gulf of St. Lawrence and that values were subnormal in other parts of the Dominion. Negative differences in Saskatchewan and Southern Alberta were from 0.06 to 0.08 of an inch, and positive departures in Northern Ontario exceeded 0.05 of an inch.





## WINDS, APRIL, 1913

PROVINCES AND STATIONS	Total Mileage	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Arden .....	5516	379							
Prince Rupert .....									
Victoria .....	5794	530	34	SW	21	2	7	12	SW
Point Garry .....									
Vancouver .....									
Kamloops .....									
ALBERTA.									
Edmonton .....	5281	555	27	NW	21		3	11	SE, NW
Calgary .....	3981	312	23	NE	15		3	13	NW
SASKATCHEWAN.									
Battleford .....									
Prince Albert .....									
Swift Current .....									
Qu'Appelle .....	8139	474	33	NW	25	1	16	8	SE
MANITOBA.									
The Pas .....									
Winnipeg .....	8500	512	31	NW, SE	17-28	2	9	10	SE
ONTARIO.									
Port Arthur .....	7192	530	33	N, NW	4	1	9	12	N, E
White River .....									
Cochrane .....									
Darry Sound .....	7011	435	26						
Sou. Hampton .....	5524	167	40	SW	5	2	3	16	SW, NE
Pelee Island .....	10924	718	42	N	28	9	11	9	SW, NW
Woodstock .....	7405	514	32	NW	19	2	5	13	NW
Guelph .....	8497	553							NE, NW
Toronto .....	10522	693	40	NW, E	1-3	6	17	6	E
Kinross .....	7622	475	27	NE	29		9	13	NE
Stonecliffe .....	4625	269	20	W	1		2	13	W
Ottawa .....									
QUEBEC.									
Montreal .....	9949	516	41	SW	5	4	16	10	SW
Sherbrooke .....									
Quebec .....	8439	732	39	SW	1	4	8	10	NE
Father Point .....	9859	751	54	SW	1	5	9	4	W
Anticosti, SW .....	10681	824	40	SE, NW	1-2	5	15	6	SE
Harrington .....									
NEW BRUNSWICK.									
Pt. Escuminac .....									
Fredericton .....	5531	504	31	W	20	1	4	10	W
St. John .....	7774	696	33	SW	19	2	7	12	N
Pt. Lepreaux .....	9643	733	44	NW	20	6	13	5	W, NW, N
NOVA SCOTIA.									
Yarmouth .....	7646	494	30						NE
Wolfville .....	7116	625	39	S	19	2	7	7	SW
Halifax .....	8382	632	37	SW	19	1	14	6	E
Sable Island .....									
Flat Point .....	9329	506	34	NW	20	5	15	6	W
PRINCE EDWARD ISLAND.									
Charlottetown .....	4770	429	25	SW	1		3	13	SW, NW

\* Part of month only.

## TEMPERATURE AND PRECIPITATION AT STATION: IN THE DOMINION OF CANADA, APRIL, 1913

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION.									
				Mean	Difference from average	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range.	Amount	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days	No. of aurora	No. of thunderstorms	No. of fogs.
BRITISH COLUMBIA--																			
S. Vancouver Island																			
Alberni (Beaver Creek).....	49 15	124 49	300	44.3	-2.9	18	71.0	17	26.0	27-28	17.7	4.50	-0.96	0.73	21	9	..	..	..
Clayoquot.....	49 11	125 55	27	46.7	+1.1	14	58.0	17	34.0	12-6	12.6	11.28	+2.91	2.62	21	9	..	..	..
Cloose.....	49 11	125 55	27	44.6	—	1	61.0	17	35.0	12-6	12.6	4.34	—	0.82	12	18	..	..	..
Cowichan (Tzouhalem).....	48 25	123 42	170	47.6	—	7	69.5	18	28.0	19-5	19.5	1.0	—	0.35	11	19	..	..	..
Gillis Bay.....	49 11	125 55	27	44.1	—	—	65.0	18	27.0	1	16.8	2.25	—	0.52	14	16	..	..	..
Koenig's.....	49 10	123 37	125	45.2	—	—	69.0	19	27.0	1	18.6	1.09	—	0.18	19	11	..	..	..
Nanaimo.....	49 10	123 37	125	44.8	—	1	64.0	18	28.0	1-22	15.3	1.96	—	0.55	13	17	..	..	..
Nanose Bay.....	49 17	124 12	130	44.8	—	4	66.0	18	31.0	1-28	15.7	1.32	—	0.63	14	16	..	..	..
Salt Spring Island.....	48 50	123 20	25	45.9	—	3	70.0	17	37.0	28-7	17.9	1.28	—	0.42	8	22	..	..	..
Sooke.....	48 41	123 44	25	45.9	—	3	70.0	17	37.0	28-7	17.9	1.28	—	0.42	8	22	..	..	..
Victoria.....	48 24	123 19	55	48.9	0.0	23	67.2	17	30.7	28-5	15.1	0.62	-1.18	0.28	10	20	..	..	..
N. Vancouver Island																			
Holberg.....	50 39	128 18	1	43.2	—	4	59.1	18	72.6	28	10.6	10.77	—	1.94	27	3	..	..	..
Swansea Bay.....	50 37	126 53	1	40.2	—	4	55.0	18	30.0	1	10.7	10.27	—	3.06	27	3	..	..	..
Triangle Island.....	50 52	129 5	680	43.9	—	6	57.0	10-18	30.0	1-2	13.8	7.41	—	0.81	25	5	..	..	..
Winter Harbour (Quatsino).....	50 32	127 40	1	43.9	—	6	57.0	10-18	30.0	1-2	13.8	7.41	—	0.81	25	5	..	..	..
Lower Fraser River																			
Agassiz.....	49 14	121 31	52	51.3	+4.4	21	75.0	19	33.0	28	24.4	4.72	+0.52	0.78	8	22	..	..	..
Chilliwack.....	49 10	121 57	21	49.0	-0.7	12	78.0	18	30.0	1-29	19.0	2.48	-1.09	1.01	13	17	..	..	..
Hop.....	49 23	121 25	500	46.8	—	4	81.0	18	26.0	1-7	26.3	1.88	—	0.56	8	22	..	..	..
Ladner.....	49 05	123 4	4	46.3	0.4	13	62.0	20	29.0	1-22	14.1	1.58	—	0.24	40	6	24	..	..
New Westminster.....	49 13	122 54	330	48.0	-0.3	25	69.8	18	29.0	1	16.9	3.12	-0.17	0.65	11	19	..	..	..
North Nicomen.....	49 12	122 2	53	49.3	+0.6	21	78.0	18	29.0	1	30.8	3.88	-1.14	1.06	12	18	..	..	..
Pamberton Hatchery.....	50 20	122 33	33	44.7	—	5	72.0	18	24.0	2	21.0	1.15	—	0.35	9	21	..	..	..
Pemberton Meadows.....	49 16	122 23	125	44.6	—	1	78.0	18	24.0	1	22.2	1.37	—	0.38	9	21	..	..	..
Ruskin (Stave Falls).....	49 21	123 17	136	47.6	—	4	75.0	17	30.0	1	18.9	4.32	—	1.43	14	14	..	..	..
Staveston (Garry Point).....	49 21	123 17	136	46.6	+0.2	18	59.0	11	29.0	2	13.8	1.84	-0.01	0.39	12	18	..	..	..
Vancouver.....	49 17	123 5	136	48.9	-0.1	13	66.9	11	30.6	1	15.9	2.53	+0.39	0.47	14	16	..	..	..
Upper Fraser River																			
Bahine Lake.....	55 38	126 26	4180	33.3	—	6	57.0	18	8.5	2	20.8	1.90	—	0.50	6	24	..	..	..
Barkerville.....	55 02	121 35	4180	31.0	-1.4	26	57.0	18	8.0	2	20.2	1.85	-0.11	0.35	11	19	..	..	..
Chilcote (Big Creek).....	51 40	123 0	3100	37.3	-0.9	11	86.0	18	8.0	2	20.2	1.85	-0.52	0.11	12	18	..	..	..
Fort George.....	51 40	123 0	3100	28.6	—	2	70.6	18	9.0	2	25.3	2.80	—	2.50	3	25	..	..	..
Fort St. James (Stuarts Lake).....	54 28	124 12	2250	37.2	+2.4	19	59.0	20	13.5	2	21.1	0.83	-1.61	0.24	8	22	..	..	..
Hydraulic.....	52 59	122 30	1700	41.4	—	2	68.0	18	14.0	2	23.4	0.56	—	0.33	5	25	..	..	..
Quennelle.....	52 59	122 30	1700	42.0	-0.8	17	75.0	19	18.0	30	26.9	0.21	-0.80	0.23	3	27	..	..	..
Okanagan Valley																			
Arnestown.....	49 35	120 10	1771	44.6	—	1	74.0	12	11.0	2	28.1	0.35	—	0.17	3	27	..	..	..
Hedley.....	49 35	120 10	1771	47.6	—	10	77.0	18	25.0	1	26.0	0.63	—	0.26	25	25	..	..	..
Hedley (Nickel Plate).....	49 35	120 10	1771	31.9	—	10	55.3	18	20.0	7	18.7	1.50	—	0.85	5	25	..	..	..
Keremunc.....	49 15	119 29	1200	50.2	—	6	76.0	12	29.0	1	31.7	0.53	—	0.24	25	25	..	..	..
Kelowna (Okanagan Mission).....	49 15	119 29	1200	42.0	-0.4	14	75.0	12-13	24.0	2	28.6	0.13	-0.95	0.07	28	24	..	..	..
Penticton.....	49 29	119 35	1650	43.4	-0.6	19	75.0	18	17.0	1	30.8	0.32	-0.70	0.21	2	28	..	..	..
Princeton.....	49 29	120 29	1650	43.4	-0.6	19	75.0	18	17.0	1	30.8	0.32	-0.70	0.21	2	28	..	..	..
Richlands.....	49 29	119 40	1160	47.2	—	1	71.0	18	22.0	21	34.6	0.12	—	0.07	5	25	..	..	..
Summerland.....	49 29	119 40	1160	46.0	—	7	73.0	12	25.0	2	22.3	0.35	—	0.35	1	29	..	..	..
Vernon (Coldstream Ranch).....	50 14	119 15	1582	46.4	+0.1	21	73.0	12-13	22.0	2	25.2	0.67	-0.46	0.46	6	25	..	..	..
West Kootenay																			
Crawford Bay.....	49 45	118 45	2000	44.0	—	4	70.0	18	21.0	1	22.6	1.32	—	0.40	7	23	..	..	..
Creston.....	49 45	118 45	2000	44.4	—	2	75.0	12	25.0	1-30	23.1	0.33	—	0.08	6	25	..	..	..
Grand Forks.....	49 2	118 27	1180	47.0	—	3	76.0	12-18	24.0	2	26.5	0.28	—	0.08	6	24	..	..	..
Greenwood.....	49 5	118 49	1180	44.6	—	1	90.0	12	16.0	1	31.8	0.45	—	0.25	6	24	..	..	..
Howse.....	49 52	117 0	1752	42.4	—	2	70.0	12	22.0	3	21.0	1.76	—	0.35	17	23	..	..	..
Kawlo.....	49 52	117 0	1752	42.0	—	5	65.0	26	19.0	23	19.5	0.24	—	0.35	17	23	..	..	..
Nakusp.....	49 52	117 0	1752	42.7	—	2	70.0	13	16.5	2	21.6	0.55	—	0.15	5	25	..	..	..
Needles.....	49 52	117 0	1752	46.2	—	4	74.0	12	19.0	2	31.4	1.09	—	0.40	5	25	..	..	..
Nelson.....	49 29	117 21	1760	46.1	-0.7	13	74.0	13	23.0	2	22.6	1.16	-0.70	0.35	7	23	..	..	..
Howland.....	49 5	117 48	3460	41.8	—	9	73.0	18	22.5	2	27.1	0.71	—	0.30	5	25	..	..	..
Waneta.....	49 5	117 48	3460	45.2	—	1	74.5	12	20.0	2	27.3	0.34	—	0.20	3	27	..	..	..
East Kootenay																			
Akamina.....	49 10	114 20	4150	43.5	—	5	78.0	14	14.0	3	31.0	0.48	—	0.22	6	24	..	..	..
Crabbrook.....	49 30	115 50	2654	45.4	+0.2	19	78.1	16	20.0	3	25.1	0.72	-0.53	0.33	4	28	..	..	..
Tobacco Plains (Elko).....	49 1	115 5	2654	41.8	—	4	70.0	14	18.0	3	22.7	0.44	—	0.18	6	26	..	..	..
Wilmer.....	50 34	116 14	1	41.8	—	4	70.0	14	18.0	3	22.7	0.44	—	0.18	6	26	..	..	..
Thompson River																			
Ashcroft.....	50 32	119 7	1180	50.2	—	1	79.0	11	24.0	1	26.3	0.41	—	0.05	8	25	..	..	..
Enderby.....	50 32	119 7	1180	47.0	+0.7	11	76.0	12	20.0	1	27.6	0.05	-0.79	0.65	1	29	..	..	..
Harper's Ranch.....	50 41	120 29	1245	49.4	-0.5	21	78.5	12	23.0	2-3	26.4	0.22	-0.16	0.12	3	27	..	..	..
Kerriticope.....	50 9	120 39	2120	48.7	—	1	77.0	12	20.0	1	26.7	0.17	—	0.08	4	26	..	..	..
Nicola Lake.....	50 42	119 35	1152	43.4	-0.3	18	75												

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STATION.	Latitude N.			Longitude W.			Elevation above sea level, in feet.	TEMPERATURE					PRECIPITATION					Days with 0.1 or more			No. of aurora.	No. of thunderstorms.	No. of fogs.			
	Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.		Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	No. of fair days.													
BRITISH COLUMBIA—Con.																										
North Coast																										
Bella Coola	52	40	126 51	150	43	2	14	64	0	19	24	0	2	19	9	2	64	+0	79	0	64	15	15	..	..	..
Kitla River	54	18	130 18	170	42	3	—	4	67	0	11	34	0	6-7-29	10	3	8	86	—	1	14	25	5	..	..	..
Prince Rupert	56	1	139 1	215	42	0	—	1	60	0	18	29	0	2	16	4	2	01	—	0	52	17	13	..	..	..
Terrace	52	40	126 51	150	43	2	14	64	0	19	24	0	2	19	9	2	64	+0	79	0	64	15	15	..	..	..
Queen Charlotte Islands																										
Ikeda Bay	52	17	131 7	5	43	4	—	5	53	0	19	34	0	6-28	8	1	6	67	—	2	05	19	11	..	..	..
Masset	53	58	132 9	30	40	8	-2	0	51	0	13	30	0	27-28	10	3	4	81	-0	08	0	86	25	5	..	..
Yukon Boundary																										
Atlin	59	35	133 38	2240	31	3	—	8	42	5	18	12	0	8	15	1	0	38	—	0	28	4	26	1	..	1
YUKON—																										
Carcross	60	11	134 34	2171	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Dawson	64	4	139 29	1200	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
MACKENZIE																										
Ft Resolution	61	0	113 0	800	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
ALBERTA—																										
N. Saskatchewan River																										
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8	19	11	0	3	29	6	0	55	—	0	27	4	26	1	1	..
Coronation	54	8	114 42	..	41	1	—	1	73	8																



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1913.

\* Stations not furnished with Registering Thermometers

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.			Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms	No. of fogs
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.					
SASKATCHEWAN—																	
Qu'Appelle River																	
Broadview.....	50 23	102 33	1960	44.8	—	—	80.0	17-22	20.0	3-9	34.0	4.00	—	4.00	1	29	—
Brownhill (Grenfell P.O.).....	50 23	102 53	1957	43.9	+ 6.7	19	78.0	13	14.0	25	24.5	0.38	-0.70	0.30	4	26	—
Brownlee.....	50 45	106 0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Buchanan.....	50 59	102 25	1658	39.3	—	8	77.0	22	8.4	3	24.2	0.43	—	0.40	3	27	1
Crescent Lake.....	49 12	103 4	1858	43.8	—	9	77.0	14	12.0	25	24.2	0.35	—	0.15	3	27	—
Fort Qu'Appelle.....	50 28	103 47	—	45.5	—	2	84.5	14	10.0	26	29.0	0.28	—	0.28	1	29	—
Hubbard (Drumange).....	51 5	103 24	—	38.2	—	7	74.0	21	10.0	2	21.2	0.20	—	0.20	1	29	—
Humboldt.....	52 12	105 9	—	42.3	—	2	80.0	12	15.0	25	24.4	0.66	—	0.50	2	28	—
Imperial.....	51 22	105 23	—	42.6	+ 4.5	23	80.0	14	12.0	25	24.6	0.13	-0.73	0.13	1	29	—
Indian Head.....	50 28	103 40	1924	40.4	—	4	77.0	21	10.0	2	19.9	0.10	—	0.10	1	29	—
Kamsack.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manor.....	49 43	102 2	2064	46.0	+ 7.8	18	84.0	13	13.0	26	30.5	0.28	-0.23	0.16	2	28	—
Moose Jaw.....	50 21	105 35	1759	41.8	—	11	82.0	15	11.0	26	26.9	—	—	—	—	—	—
Moosomin.....	50 0	101 37	1884	40.0	—	8	72.0	21-22	14.0	2	20.3	0.08	—	0.05	3	27	—
Muenster (St. Peter's Mon.).....	52 0	105 0	1870	39.5	—	12	73.0	21	12.0	23	21.7	0.14	—	0.14	1	29	—
Pilger.....	52 25	105 9	—	43.5	+ 5.9	17	82.0	14	14.0	25	28.6	0.67	-0.59	0.07	1	29	—
Pense (Gatesgarth).....	50 20	105 0	1879	43.8	—	7.8	29.7	14-21	14.0	26	24.3	0.32	-0.79	0.28	3	27	1
Qu'Appelle.....	50 30	103 47	2115	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quill Lake.....	52 4	104 14	1600	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regina.....	50 27	104 37	1885	43.6	+ 6.5	27	80.0	13	9.0	26	28.1	0.05	-0.69	0.03	2	28	—
Straatsburg.....	51 5	104 57	—	42.5	—	6	78.0	12	8.0	2	22.5	—	—	—	—	—	—
Yarbo (Fairfield).....	50 39	102 4	—	43.8	—	3	82.0	14	11.0	25	29.2	0.10	—	0.10	1	29	—
Yellow Grass.....	49 49	104 9	—	39.4	—	4	77.0	22	15.0	3	22.0	0.00	—	0.00	0	30	—
Yorkton.....	51 11	102 29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S. Saskatchewan River																	
Chaplin.....	50 26	106 39	2202	43.3	+ 3.0	26	86.0	15	15.0	24-25	32.2	0.22	-1.02	0.20	2	28	—
East End (Divide).....	49 31	108 49	—	40.8	—	6	77.2	15	12.6	2	29.4	0.56	—	0.51	2	28	—
Kelvinhurst (Nashlyn).....	51 46	108 10	—	35.3	—	3	78.0	13	18.0	4.8	25.7	0.60	—	0.26	3	27	—
Kinderley.....	50 0	105 0	—	40.0	—	25	27.6	—	—	—	—	—	—	—	—	—	—
Larchmont (Glenbryan).....	49 21	109 23	—	42.5	—	2	85.0	16	15.0	35	34.1	1.52	—	0.65	5	25	2
Oliver.....	49 54	107 27	—	43.8	—	4	85.0	14	12.0	26	30.6	0.11	—	0.08	2	28	—
Rathmullen.....	51 20	108 57	—	42.8	—	3	82.0	16	8.3	25	30.4	0.40	—	0.15	6	24	—
Swift Current.....	50 20	107 45	2429	46.6	+ 5.5	27	82.0	15	18.0	25	27.7	0.64	+0.11	0.22	5	25	—
N. Saskatchewan River																	
Battleford.....	52 41	108 26	1620	47.0	+ 9.0	23	83.0	13	20.0	25	26.2	0.06	0.41	0.00	0	30	—
Lloydminster.....	53 18	110 3	—	42.4	—	8	78.0	14	18.0	25	23.9	0.00	—	0.00	0	30	—
Luseland.....	52 5	109 34	—	42.3	—	3	81.0	13	15.0	25	28.7	0.48	—	0.20	5	25	2
Onion Lake.....	53 52	109 59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince (Meata).....	51 0	108 20	1700	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scott (Ex. Farm).....	51 59	109 30	—	43.2	—	4	79.0	13	14.1	35	27.5	0.15	—	0.09	3	27	—
St. Walburg.....	51 59	109 30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Waseca.....	53 6	109 29	—	42.0	—	6	78.0	13	17.0	25	23.8	T	—	T	0	30	1
The Saskatchewan Forks																	
Chagness (Star City).....	52 32	104 13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Duck Lake.....	52 54	106 20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Melfort.....	52 47	104 30	—	41.8	—	4	76.0	21	14.0	25	22.3	0.50	—	0.28	3	27	1
Prince Albert.....	53 10	106 0	1432	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rosthern.....	52 40	106 20	1657	40.4	—	3	73.9	22	14.8	2	20.9	0.27	—	0.13	5	25	—
Saskatoon.....	52 15	106 30	1571	43.9	+ 7.2	15	77.8	14	19.9	26	23.0	0.28	-0.69	0.20	2	28	—
Lower Saskatchewan River																	
Cumberland House.....	53 56	102 16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lost River.....	53 17	104 21	—	40.1	—	2	78.0	21	16.0	25	22.3	0.52	—	0.45	6	24	—
MANITOBA—																	
Qu'Appelle and Assiniboine Rivers																	
Aweme (St. Albans).....	49 42	99 35	1180	45.6	+ 9.5	28	85.0	14	17.0	26	27.0	0.30	-0.81	0.15	6	24	2
Boissevain.....	50 25	101 1	1703	44.9	—	2	79.0	22	21.0	26	22.2	0.46	—	0.30	3	27	—
Brandon.....	49 51	99 57	1776	44.3	+ 4.0	25	82.7	14	18.1	26	26.0	0.35	-0.40	0.19	4	26	—
Carberry.....	49 52	99 20	1258	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Carman.....	49 31	98 0	872	—	—	8	80.0	15	15.0	28	26.1	0.21	—	0.09	5	25	—
Cypress River.....	49 33	99 3	1232	43.0	—	2	79.0	14	15.0	1	21.9	0.32	-1.00	0.02	2	28	—
Hillview.....	49 55	100 33	1490	44.2	+ 6.1	24	79.0	14	20.0	1	21.9	0.32	-1.00	0.02	2	28	—
Minnedosa.....	50 15	99 50	1699	44.1	+ 6.6	29	79.5	14	16.1	26	25.3	0.31	-0.57	0.16	4	26	—
Ninette.....	49 24	99 35	1363	44.0	—	2	77.0	15	21.0	26	25.0	—	—	—	—	—	—
Ninga.....	49 14	99 51	1649	43.5	—	4	78.0	14	22.0	23	20.6	—	—	—	—	—	—
Pierson.....	49 11	101 5	1111	43.9	—	9	83.0	15	11.0	28	26.8	0.50	—	0.30	3	27	—
Pipestone.....	49 34	100 55	1400	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Portage la Prairie.....	49 57	98 17	—	44.4	+ 4.7	23	81.8	15	19.0	25	23.3	0.49	-1.63	0.30	6	24	—
Portage la Prairie (2).....	49 58	98 17	—	44.9	—	8	81.0	15	20.0	26	21.3	0.15	—	0.15	1	29	—
Russell.....	49 57	96 42	896	44.4	+ 5.6	27	74.7	21	18.5	3-24	22.7	0.63	-0.89	0.03	1	29	—
Souris.....	50 59	101 20	—	49.0	—	—	81.8	14	22.1	5	19.8	0.10	—	0.10	1	29	—
Treherne.....	49 36	98 40	1212	41.7	+ 6.3	18	80.0	14	16.0	26	21.6	0.38	—	0.10	7	23	2
Virton.....	49 51	100 55	1444	45.4	—	8	82.0	14	22.0	2	26.3	—	—	—	—	—	—
The Red River																	
Atmasippi.....	49 14	98 20	—	45.2	+ 9.7	11	82.0	21	17.0	26	25.3	0.30	-0.87	0.20	2	28	—
Morden.....	49 11	98 6	878	44.5	—	9	79.0	15-22	18.0	26	22.8	0.57	—	0.37	2	28	—
Oak Bank.....	49 57	96 42	896	44.4	+ 5.6	27	74.7	21	18.5	3-24	22.7	0.64	-0.89	0.03	1	29	—
South Mountain.....	50 40	97 14	803	44.4	+ 5.4	31	79.0	22	15.0	26	27.1	0.18	-0.93	0.13	2	28	—
Winipeg.....	49 53	97 7	760	46.1	+ 7.5	37	77.8	21	19.4	26	22.7	0.41	-1.13	0.19	8	22	1



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1913.

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STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION					Days with 01 or more, of four days.	No. of auras	No. of thunderstorms.	No. of fogs			
				Mean.	Difference from average.	Yr's observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Heaviest fall in month.								
ONTARIO—Continued—																						
West-Central Counties																						
Alton.....	43 51 30	80 5	1250	46 3	+ 3 2	33	83 0	25	24 0	20 21 8	4 56	+2 73	1 29	6 24	.....	.....	.....	.....				
Brantford.....	43 10 30	80 21	750	43 0	+ 3 0	17	80 0	25	22 0	21 21 7	3 52	+1 42	1 28	10 20	.....	.....	.....	.....				
Elora.....	43 41 30	80 24	1274	44 9	+ 3 3	25	73 0	24-25	25 0	20 19 3	4 50	+1 75	0 68	10 24	.....	.....	.....	.....				
Guelph.....	43 33 30	80 16	1050	43 7	+ 4 9	18	81 0	25	21 0	20 21 8	5 50	+3 34	1 51	7 23	.....	.....	.....	.....				
Listowel.....	42 59 51	81 13	808	46 4	+ 3 6	30	82 0	25	21 0	21 23 3	3 87	+1 19	1 62	7 23	.....	.....	.....	.....				
London.....	43 12 30	80 25	840	47 1	+ 3 2	24	84 0	25	26 0	8 23 3	4 19	+2 29	1 05	11 19	.....	.....	.....	.....				
Shelburne.....	43 23 31	81 0	1191	45 9	+ 2 6	40	85 5	24	24 0	21 20 8	2 67	-0 85	1 02	11 19	.....	.....	.....	.....				
Stratford.....	43 8 30	80 47	980	45 9	+ 2 6	40	85 5	24	24 0	21 20 8	2 67	-0 85	1 02	11 19	.....	.....	.....	.....				
Woodstock.....	43 8 30	80 47	980	45 9	+ 2 6	40	85 5	24	24 0	21 20 8	2 67	-0 85	1 02	11 19	.....	.....	.....	.....				
Lake Ontario Counties																						
Agincourt.....	43 47 79	16	590	44 8	+ 1 7	18	78 4	21	24 4	2 19 9	3 48	+1 21	0 71	9 21	.....	.....	.....	.....				
Aurora.....	43 57 79	24	886	44 0	—	5	80 0	25	24 0	19 16 9	3 80	+1 92	1 50	6 24	.....	.....	.....	.....				
Hamilton.....	43 16 79	54	303	46 7	+ 3 6	37	83 0	24	28 0	20 17 8	1 43	-0 37	1 43	1 29	.....	.....	.....	.....				
Oshawa.....	43 53 78	52	331	44 4	—	9	75 0	25	25 0	20 18 1	3 16	—	1 71	4 26	.....	.....	.....	.....				
Toronto.....	42 40 79	24	350	46 3	+ 2 2	73	76 7	25	27 7	20 17 8	3 50	+1 37	0 90	12 18	.....	.....	.....	.....				
Toronto Is. (Lakeside Home)	43 40 79	24	.....	44 2	—	9	68 0	16	28 0	20 16 0	—	—	—	—	.....	.....	.....	.....				
Uxbridge.....	44 5 79	8	886	43 2	—	9	80 0	25	23 0	20 18 9	3 40	—	1 00	10 20	.....	.....	.....	.....				
Wexford.....	43 44 79	17	553	42 9	—	1	72 0	24-25	25 0	20 18 0	4 22	—	1 10	7 23	.....	.....	.....	.....				
East-Central Counties																						
Bancroft.....	45 1 77	50	.....	42 0	+ 4 0	32	83 0	25	19 0	19 23 2	—	—	—	—	.....	.....	.....	.....				
Haliburton.....	45 1 8	28	1050	42 9	+ 1 5	24	85 0	25	4 0	15 27 0	—	—	—	—	.....	.....	.....	.....				
Kinnikinnick.....	44 45 78	38	920	42 7	+ 0 0	14	82 0	25	20 0	19 23 0	2 20	+0 11	0 91	5 25	.....	.....	.....	.....				
Lakefield.....	44 25 78	15	850	45 5	+ 4 5	30	83 4	25	22 0	20 24 4	3 75	+2 05	0 92	8 22	.....	.....	.....	.....				
Lindsay.....	44 20 78	45	872	42 7	—	9	82 0	25	22 0	20 21 9	2 45	—	1 01	10 20	.....	.....	.....	.....				
Madoc.....	44 30 77	29	572	44 3	—	1	83 0	26	13 5	4 20 8	2 96	—	1 50	7 23	.....	.....	.....	.....				
Norwood.....	44 17 78	19	722	45 4	+ 3 6	43	81 0	24-25	22 0	20 22 9	3 01	+1 15	0 90	8 22	.....	.....	.....	.....				
Peterboro.....	44 54 78	18	.....	45 4	+ 3 6	43	81 0	24-25	22 0	20 22 9	3 01	+1 15	0 90	8 22	.....	.....	.....	.....				
Uria.....	44 54 78	18	.....	45 4	+ 3 6	43	81 0	24-25	22 0	20 22 9	3 01	+1 15	0 90	8 22	.....	.....	.....	.....				
QUEBEC—																						
Middle St. Lawrence																						
Brome.....	45 10 72	36	678	42 7	+ 3 2	32	82 0	25-26	12 0	9 21 0	2 27	+0 70	0 95	6 24	.....	.....	.....	.....				
Cap Rouge.....	46 46 71	18	.....	39 4	—	2	83 0	27	15 2	9 19 8	2 26	—	0 87	10 20	.....	.....	.....	.....				
Cedar Rapids.....	45 55 71	21	132	42 9	—	1	84 0	26	10 0	1 22 5	2 24	—	0 56	8 22	.....	.....	.....	.....				
D'Iberville.....	45 55 71	21	896	45 8	+ 4 0	35	83 4	26	21 5	20 17 9	2 46	+0 14	1 18	8 22	.....	.....	.....	.....				
Montreal.....	45 30 73	35	187	40 4	+ 3 3	38	80 4	25-26	13 0	9 19 1	1 73	-0 30	0 67	10 20	.....	.....	.....	.....				
Quebec.....	46 48 71	13	296	44 6	—	9	87 0	25	21 2	20 24 0	2 97	—	0 96	6 24	.....	.....	.....	.....				
Ste. Anne de Bellevue	45 27 73	59	.....	35 7	-0 1	10	86 0	27	7 0	7 24 1	1 56	—	0 51	10 20	.....	.....	.....	.....				
Shawinigan Falls.....	46 34 72	43	.....	35 7	-0 1	10	86 0	27	7 0	7 24 1	1 56	—	0 51	10 20	.....	.....	.....	.....				
Sherbrooke.....	45 32 72	5	620	45 3	—	1	82 0	25	8 8	8 19 2	2 42	—	0 25	11 19	.....	.....	.....	.....				
Lower St. Lawrence & Gulf																						
*Anticosti, E. Pt.....	49 0 61	42	30	32 0	+ 4 5	28	47 0	26	23 0	7 —	0 88	-0 78	0 45	3 27	.....	.....	.....	.....				
*Anticosti, S.W. Pt.....	49 52 64	32	30	32 3	+ 1 1	—	71 0	26	15 0	8 10 9	2 32	-0 01	0 66	8 22	.....	.....	.....	.....				
*Anticosti, W. Pt.....	49 52 64	32	30	32 8	+ 0 8	31	55 0	26	18 0	7 —	1 39	-3 37	0 70	5 25	.....	.....	.....	.....				
*Bicquet.....	48 25 68	53	36 9	36 9	—	30	65 0	25	19 0	7 —	2 65	+0 15	0 70	8 22	.....	.....	.....	.....				
*Cape Chatte.....	49 0 66	45	34 3	34 3	-0 1	30	48 0	26	20 0	6 —	1 32	—	0 80	4 26	.....	.....	.....	.....				
*Cape Magdalen.....	49 16 65	20	93	35 8	+ 2 2	31	59 0	26	20 0	8 —	1 41	-1 49	0 80	8 22	.....	.....	.....	.....				
*Father Point.....	48 31 68	19	20	36 8	+ 3 1	35	62 0	25	19 0	2 13 9	2 11	+0 15	0 60	9 21	.....	.....	.....	.....				
*Ste Anne de la Poutiere.....	47 22 70	2	65	37 8	—	1	82 0	25	8 8	8 19 2	2 42	—	0 25	11 19	.....	.....	.....	.....				
Lake St. John																						
Chicoutimi.....	48 25 71	5	150	—	—	34	—	—	—	—	0 70	—	0 35	5 25	.....	.....	.....	.....				
Chicoutimi (2).....	47 39 72	15	1333	34 2	—	3	57 0	27	15 0	8 6 9	1 67	—	0 48	9 21	.....	.....	.....	.....				
Lake Edward.....	47 27 72	48	520	35 8	—	4	81 6	25	0 4	8 25 1	1 67	—	0 48	9 21	.....	.....	.....	.....				
La Tuque.....	47 27 72	48	520	35 0	—	2	82 0	27	8 0	9 21 5	0 85	—	0 23	7 23	.....	.....	.....	.....				
Mistassini.....	48 54 72	15	360	—	—	—	—	—	—	—	—	—	—	—	.....	.....	.....	.....				
*Roberval.....	49 31 72	13	352	—	—	—	—	—	—	—	—	—	—	—	.....	.....	.....	.....				
The Northwestern Districts																						
Abitibi.....	48 33 79	22	.....	34 0	+ 1 6	17	69 0	24	4 0	9 21 0	1 75	+0 37	0 40	6 24	.....	.....	.....	.....				
Manouan Crossing.....	47 54 73	50	.....	—	—	—	—	—	—	—	—	—	—	—	.....	.....	.....	.....				
Weymontachingue (Dain A).....	48 12 75	43	.....	32 7	—	2	81 0	25	1 0	2 23 4	1 57	—	0 30	3 27	.....	.....	.....	.....				
White Shore Lake.....	48 12 75	43	.....	32 7	—	2	81 0	25	1 0	2 23 4	1 57	—	0 30	3 27	.....	.....	.....	.....				
The North Shore																						
Clarke City.....	50 10 66	25	.....	—	—	—	—	—	—	—	—	—	—	—	.....	.....	.....	.....				
NEW BRUNSWICK—																						
Chatham.....	47 3 65	29	21	41 7	+ 3 9	38	85 0	25	14 0	8 21 5	2 66	-0 09	0 89	10 20	.....	.....	.....	.....				
Dalhousie.....	45 4 66	22	39	42 5	+ 4 5	33	80 0	25	16 0	8 19 1	2 17	-0 04	0 30	5 25	.....	.....	.....	.....				
Fredrickton.....	45 57 66	36	164	42 7	+ 4 3	40	83 0	25	15 0	8 21 6	1 17	-0 17	0 54	10 20	.....	.....	.....	.....				
Moncton.....	46 9 64	45	50	41 4	+ 2 8	15	79 0	25-27	13 0	9 19 1	2 10	-0 43	0 80	7 23	.....	.....	.....	.....				
*Point Lepreau.....	45 4 66	28	30	39 0	+ 1 8	35	55 0	28	19 0	8 —	2 78	+0 14	0 89	6 24	.....	.....	.....	.....				
St. John.....	45 17 66	4	70	40 1	+ 0 6	40	61 4	28	19 3	8 12 0	2 89	-0 08	0 75	15 15	.....	.....	.....	.....				
St. Stephen.....	45 11 67	16	33	41 9	+ 0 0	16	82 5	25	17 0	8 24 1	1 92	-1 64	0 63	5 25	.....	.....	.....	.....				
Sussex.....	45 38 65	38	96	42 8	+ 2 7	16	80 0	26	22 0	8 20 1	2 83	-0 36	0 96	4 26	.....	.....	.....	.....				
Williamsburg.....	45 39 3	33	41 9	41 9	+ 1 5	0 1	85 0	27	12 0	9 22 1	6 22	—	1 20	15 15	.....	.....	.....	.....				



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1913.

\*Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION			Days with 40 or more No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs		
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount.	Difference from average					Heaviest fall in month	
NOVA SCOTIA—																			
Advocate.	45	38	61	50	41.6	—	3	82.0	28	14.0	9	21.5	—	—	—	—	—	—	
Antigonish.	44	39	63	38	42.7	+1.6	38	82.3	26	21.6	9	18.7	+2.26	1.40	16	14	1	1	
Halifax.	45	3	—	40	40.1	—	2	75.0	26	16.0	10	17.1	—	1.79	9	21	—	—	
Keatville.	45	3	—	40	41.9	—	—	77.0	26	19.0	8-10	15.3	4.28	0.70	16	14	—	—	
Kentville (2)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Merigomish.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
New Germany.	—	—	—	—	43.6	—	2	81.0	27	19.0	10	20.8	4.59	1.98	5	25	1	—	
Parsboro.	45	23	64	19	40	—	—	—	—	—	—	—	—	—	—	—	—	—	
Port Hastings.	45	39	61	22	45	—	+0.2	21	70.0	25	16.0	5	13.3	11.77	+8.58	1.98	8	22	
Sable Island, E. Pt.	43	58	59	46	25	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sable Island (Main Station)	43	57	60	6	25	38.8	—	—	52.0	28	30	26.0	9	9.6	3.40	-0.48	0.66	14	16
Sydney.	46	10	60	10	35	39.6	+28.3	39	74.0	25	24.5	4-19	15.8	3.37	-0.74	0.82	13	17	
Truro.	45	22	63	18	77	41.2	+3.4	37	73.5	28	15.0	9	18.5	6.98	+4.14	1.12	13	17	
*Whitehead.	45	15	61	8	20	—	—	—	—	—	—	—	—	—	—	—	—	—	
Windsor.	44	59	64	6	90	43.0	+4.2	11	79.0	27	21.0	9	16.0	5.98	+2.70	1.58	14	16	
Wolfville.	45	7	64	20	42.7	—	—	14	76.2	26	20.7	8	15.9	3.60	+0.86	0.63	12	18	
Yarmouth.	43	50	66	2	65	42.1	+1.9	32	67.7	28	25.6	8	12.4	4.98	+1.16	1.04	17	13	
P. E. ISLAND—																			
Charlottetown.	46	14	63	10	38	40.0	+2.9	37	74.0	26	21.0	8	15.2	3.91	+1.26	0.89	15	15	
Charlottetown (Exp. Farm)	46	14	63	7	75	40.2	—	3	78.8	26	17.5	8	17.6	3.87	—	0.78	17	13	
Hamilton.	46	25	63	48	—	39.8	+4.2	15	78.0	27-28	23.0	8-9	15.6	1.37	-1.56	0.75	7	23	
NEWFOUNDLAND—																			
*Amour Point.	51	28	56	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Burin.	47	0	55	10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	
*Cape Norman.	51	38	55	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Fogo.	49	43	54	17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	
*Point Riche.	50	42	57	25	33	29.6	—	31	48.0	28	10.0	4	5	0.59	+0.20	0.40	4	26	
Port aux Basques.	47	35	59	10	27	33.7	—	5	58.5	26	20.5	5	9.2	3.65	—	0.71	15	15	
St. George's.	—	—	—	—	37.2	—	—	20	65.1	29	20.2	10	14.7	2.98	—	0.62	16	14	
St. John's.	47	34	52	42	125	39.4	+4.0	40	72.0	27	21.0	5	15.1	3.92	-0.43	0.68	16	14	
LABRADOR—																			
North West River.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
BERMUDA—																			
Prospect.	32	17	64	46	151	62.7	-1.8	23	73.8	30	49.8	10	12.0	1.94	-2.96	0.56	13	17	

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER. &amp; DURING APRIL, 1913.

STATIONS.	RAINFALL.				Date.	SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.		Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date	
BRITISH COLUMBIA—										
Alkali Lake	0 00			0 00		1 0	1	1 0	25	
Annis (Cunoo Point)	0 44	6	24	0 23	5					
Armstrong	0 74	5	25	0 30	25					
Capitlam	3 61	8	22	1 24	5					
Cariboo Road No 141		9	21	0 61	5					
Denman's Island	2 12	15	21	0 38	21	11 0	6	3 0	30	
Ferguson	1 18	4	20	0 58	21					
Goldstream Lake	1 92	15	15	0 41	21					
Hydraulic										
Hornby Island	1 90	16	14	0 35	5-9					
Invermere	1 60	2	26	1 10	21	1 8	2	1 5	27	
Jordan River	2 38	14	16	0 38	21					
Jordan River (Bear Creek)	3 51	16		0 73	21	0 2	1	0 2	5	
Little Quilicum	1 46	11	19	0 25	12					
Lumby	0 69	5	25	0 31	6					
Monte Creek										
Nans Harbour	5 77	16	14	1 00	23					
Rock Creek	0 64	3	27	0 46	4					
Shawangnan Lake										
Wycliffe	1 43	4	26	0 38	13-20					
ALBERTA—										
Bardo	0 15	1	25	0 15	22	1 0	1	1 0	6	
Bismark	T	1	28	T	26	5 0	2	4 5	21	
Bruderheim						0 8	1	0 8	20	
Bittern Lake						2 3	2	1 0	29	
Brooks	0 16	1	27	0 16	22	7 0	3	4 5	28	
Beaver Mines	0 14	2	25	0 08	16	6 0	4	3 4	1	
Coleman	0 02	1	25	0 02	21	1 5	3	3 0	29	
Cowley	0 22	2	20	0 20	16	8 5	4	4 5	29	
Caldwell	0 02	1	25	0 02	16	6 0	3	3 0	28	
Clareholm	0 20	1	26	0 20	16	1 0	1	1 0	30	
Dorealee (Bashaw)						8 2	2	4 5	28	
Dunstable (Fire Lakes)	0 05	1	25	0 04	21	5 0	2	4 0	30	
Grassy Lake						*	2	*	28-29	
Jumping Pound	0 15	1		0 15	29	1 4	1	1 4	29	
Loch Sloy	0 80	1	28	0 80	16	7 0	1	7 0	30	
Lyndon						*	1	*	28	
Lineham	0 12	2	28	0 10	22	3 5	1	3 5	29	
La Pearl	0 16	1	28	0 16	16	6 0	4	4 0	29	
Lethbridge						3 2	4	1 8	28	
Macleod	0 37	2	24	0 25	16	8 0	3	5 0	29	
Mayerhoff	0 17	1	26	0 17	16	0 5	1	0 5	30	
Mountain View	0 23	2	27	0 23	22					
Mannville (Roycroft Ranch)										
Nateby	0 16	1	29	0 16	16					
Nanton						8 3	3	4 0	28	
Okotoks	0 49	2	25	0 46	28	3 0	5	1 0	28	
Pekisko	0 15	1	24	0 15	22					
Ponoka										
Son	1 15	2	25	0 60	16					
Seven Persons						4 3	1	4 3	30	
Tilley	0 21	2	27	0 19	16	11 0	3	6 5	30	
Writing-on-Stone (Coutts)	0 44	4	23	0 22	21					
Waterton Mills										
SASKATCHEWAN—										
Aberfeldy	0 50	3	26	0 20	5-16	10 0	1	10 0	30	
Gull Lake	0 33	4	26	0 32	28	6 2	2	6 0	30	
Gull Lake (Fks. Swift Cur.)										
Last Mountain						*	2	*	30-31	
Maple Creek	0 52	4	26	0 42	17					
Meadow Lake										
Nashlyn (Kelvinhurst)	0 70	4	24	0 43	30	0 8	2	0 5	21	
Willow Creek (Battle Cr.)	0 35	2	27	0 27	17	6 0	1	6 0	30	
Wapashoe										
MANITOBA—										
Cartwright	1 25	4	25	0 80	16	2 5	1	2 5	7	
Deloraine										
Norquay (Swan Lake)	0 33	3	24	0 16	18	2 5	3	2 0	7	
Rapid City	0 29	3	26	0 19	20	2 0	1	2 0	7	
Rose Bank										
ONTARIO—										
Brantford(Bow Park Farm)	4 13	6	24	1 40	3					
Deer Park	2 54	5	25	0 77	4					
Dutton	1 30	3	27	0 80	1					
Emsdale	2 53	9	18	0 77	5	1 3	3	0 5	1-6	
Fort Frances	1 10	5	25	0 46	23					
Georgetown	3 92	10	20	1 07	3					
Grantham	3 63	8	21	1 20	4	*	1	*	6	
Grand Valley	4 04	7	23	1 28	4					
Hillier	2 30	5	25	0 60	27					
MacCue	2 41	6	24	1 30	4					
Princeton										
Reelfoot										
Swanton	2 00	2	28	1 35	3					
Strathroy	3 95	7	23	1 18	3	0 5	1	0 5	6	
Watford	3 02	5	25	1 22	3					
Westport	2 25	6	22	1 20	4	3 5	2	2 5	3	
Westminster	3 97	4	25	1 31	4	2 0	1	2 0	6	
Woner										
Wesley										
Wottonville										
Warton	3 78	5	25	2 00	4					

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING APRIL, 1913.

STATIONS	RAINFALL					SNOWFALL				REMARKS
	Amount in inches.	No. of Days 01 or over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
QUEBEC—										
Bark Lake (Riviere Desert)	1.42	4	23	0.69	12	1.2	3	0.6	6	
Kipawa Dam	1.32	5	23	0.90	27	4.0	2	2.5	4	
Lucerne						11.0	2	9.0	4	
Perkins Mills	1.73	4	24	1.00	4	2.5	2	2.0	3	
Quinze Dam	2.32	3	26	0.97	27	4.0	1	4.0	6	
Timiskaming	1.25	4	25	0.76	27	2.3	1	2.3	3	
NEW BRUNSWICK—										
Point Escuminac	0.17	4	25	0.06	30	4.2	1	4.2	6	
NOVA SCOTIA—										
Big Mashamush Lake (Ma- honey)										
Kentville	6.00	12	15	1.45	4	7.0	3	3.0	6	
Milton	4.87	6	24	1.81	14					
Mushamush River (Mahoney)										
Nappan	3.01	8	20	0.98	14	4.5	2	3.0	7	
South Alton										
White Rock	3.06	4	24	1.73	13	8.3	3	6.0	6	

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF APRIL, 1913.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet	PRESSURE.			Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded	DIRECTION OF WIND FROM										VELOCITY OF WIND											
				Mean reduced.	Highest.	Lowest.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations	Mean miles per hour	Maximum velocity.	Date and direction from.									
BRITISH COLUMBIA—																															
Atlin	50	35	133	38	2210	29	83	30	38	23	31	1	0	7	34	3	2	4	7	60	7	7									
Barkerville	53	3	121	35	4180	29	88	30	35	29	27	1	0	8	19	0	5	31	90	7	7										
Kamloops	50	42	120	29	1245	29	89	30	33	29	41	0	9	2	18	6	5	3	7	60	7	7									
a Nanaimo	49	10	123	37	125	29	84	30	38	29	00	1	29	7	7	1	0	33	60	7	7										
Prince Rupert	54	18	130	18	170	29	84	30	38	29	00	1	29	7	7	1	0	33	60	7	7										
Triangle Island	50	52	129	5	680	29	84	30	38	29	00	1	29	7	7	1	0	33	60	7	7										
Tranquille	50	41	120	29		29	84	30	38	29	00	1	29	7	7	1	0	33	60	7	7										
Vancouver	49	17	123	5	136	30	02	30	43	29	64	0	79	74	6	7	3	1	14	12	3	5	5	7	10	60	8	0	34	2	SW
Victoria	48	24	123	19	85	30	00	30	41	29	59	0	82	75	7	11	7	5	5	1	6	16	9	8	3	60	8	0	34	2	SW
YUCON—																															
Dawson	64	4	139	20	1200																										
ALBERTA—																															
Banff	51	10	115	34	4542	29	95	30	24	29	45	0	79	61	5	6	2	4	0	3	3	24	6	2	16	60					
Calgary	51	2	114	2	3389	29	87	30	24	29	23	1	01	54	4	3	5	2	2	7	4	4	5	21	10	60	5	5	23	15	NE
Edmonton	53	33	113	30	2158	29	85	30	29	23	1	06	63	4	3	2	6	2	14	9	6	6	13	2	60	7	3	23	11	NE	
Medicine Hat	50	1	110	37	2161	29	88	30	27	29	23	0	99	54	5	2	3	3	5	1	2	5	49	13	3	7	90				
SASKATCHEWAN—																															
Battleford	52	41	108	20	1620	29	91	30	39	29	30	1	09	82	3	3	5	2	6	16	2	6	2	9	12	60					
Moose Jaw	50	21	105	35	1755	29	93	30	34	29	12	1	22	61	3	3	10	5	22	8	1	10	6	8	20	90					
Prince Albert	53	10	106	0	1432	29	93	30	34	29	12	1	22	61	3	3	10	5	22	8	1	10	6	8	20	90					
Qu'Appelle	50	30	103	47	2115	29	95	30	38	29	36	1	02	67	4	8	5	6	8	13	8	7	4	9	0	60	11	7	33	25	NW
Swift Current	50	20	107	45	2439	29	90	30	27	29	23	1	02	68	4	3	2	1	0	13	7	24	8	21	14	90					
MANITOBA—																															
a Avenue (St. Alban's)	49	42	99	33	1180	29	91	30	39	29	30	1	09	82	3	3	5	2	6	16	2	6	2	9	12	60					
Minnedosa	50	15	99	30	1699	30	02	30	47	29	34	1	13	83	5	7	4	3	17	17	4	6	8	15	16	90					
Le Pas	53	49	101	15	860	29	91	30	39	29	30	1	09	82	3	3	5	2	6	16	2	6	2	9	12	60					
Winnipeg	49	53	97	7	760	30	04	30	41	29	36	1	08	68	4	5	16	7	8	26	10	5	6	12	0	90	11	8	34	17	NW
ONTARIO—																															
Cochrane	49	2	81	0	916	29	91	30	39	29	30	1	09	82	3	3	5	2	6	16	2	6	2	9	12	60					
Guelph	43	33	50	16	050	29	91	30	39	29	30	1	09	82	3	3	5	2	6	16	2	6	2	9	12	60					
Halifax	47	29	79	39	587	30	10	30	36	29	56	1	09	69	5	10	22	1	5	2	8	5	4	4	5	90					
Kingston	44	13	76	21	285	30	04	30	34	29	62	1	90	68	4	7	3	23	1	4	3	8	8	10	0	60	10	6	27	28	NE
London	42	59	51	13	808	30	03	30	47	29	66	0	81	66	4	7	3	16	4	26	0	2	3	36	0	90					
a Lindsay	44	20	78	45	872	29	10	30	36	29	67	0	83	—	4	8	19	11	8	6	5	16	4	15	6	90					
Ottawa	45	26	75	42	294	30	01	30	35	29	46	1	09	78	5	8	12	2	10	1	8	12	12	3	0	60					
Perry Sound	45	19	80	0	635	30	06	30	32	29	63	0	89	76	4	10	4	12	1	6	5	11	5	10	6	60	9	8	26		
Port Arthur	48	27	89	12	644	30	10	30	36	29	57	1	05	75	4	5	24	6	37	6	0	2	4	7	4	90	10	0	33	18	NW
Port Stanley	42	40	81	13	592	30	06	30	36	29	57	0	83	72	5	10	4	17	17	4	0	10	13	14	11	90					
Southampton	44	39	81	21	656	30	08	30	38	29	58	1	09	75	5	25	14	12	3	8	9	20	2	20	2	90					
Stonewall	46	9	78	6	557	30	06	30	32	29	61	0	91	—	4	5	0	0	11	2	0	2	21	1	23	60	6	4	20	1W	
Toronto	43	40	79	24	350	30	06	30	35	29	63	0	85	65	5	8	10	9	11	1	2	3	11	13	0	60	14	6	40	1W	
White River	48	35	85	16	1252	30	08	30	36	29	54	1	12	—	4	4	22	0	2	0	10	1	10	1	13	59					
Woodstock	43	8	50	47	980	30	05	30	32	29	60	0	83	75	5	12	8	20	6	10	4	17	6	19	0	90	10	3	32	19	NW
QUEBEC—																															
Anticosti S.W. Pt.					29	90	30	35	28	96	1	39	95	4	5	18	8	7	24	9	0	2	16	6	90	14	8	40	1SE		
Father Point	48	31	68	19	20	29	96	30	35	28	96	1	69	86	5	9	7	7	16	3	3	6	29	11	8	90	13	7	54	18W	
Montreal	45	30	73	35	187	30	01	30	36	29	41	1	16	52	4	7	20	7	4	4	21	12	10	12	0	90	13	8	41	58W	
Quebec	46	48	71	13	293	30	00	30	36	29	41	1	16	52	4	7	20	7	4	4	21	12	10	12	0	90	13	8	41	58W	
Sherbrooke	45	32	72	5	620	29	96	30	35	28	96	1	39	95	4	5	18	8	7	24	9	0	2	16	6	90	14	8	40	1SE	
NEW BRUNSWICK—																															
Chatham	47	3	65	29	21	29	98	30	46	29	09	1	37	79	6	7	1	13	25	1	0	19	17	11	0	90					
Frishtown	45	57	66	36	167	30	00	30	48	29	20	1	28	82	6	10	15	9	1	8	4	17	18	14	1	90	9	7	31	20W	
St. John's	45	17	56	4	70	29	99	30	45	29	26	1	19	76	7	11	18	8	8	3	19	13	6	12	3	90	10	8	33	19W	
NOVA SCOTIA—																															
Halifax	44	39	63	36	88	29	96	30	37	29	31	1	06	83	7	11	5	17	4	4	2	6	11	8	3	60	11	7	37	19W	
Sable Island (M.Station)	43	57	80	6	25	30	00	30	50	29	41	1	06	—	7	10	6	4	4	6	7	3	9	17	4	90					
Sednav	46	10	60	10	35	29	95	30	39	29	29	1	10	76	7	14	10	14	7	4	2	22	6	21	4	90	13	0	34	20	NW
Yarmouth	45	7	64	20	20	29	98	30	61	29	27	1	34	—	6	16	7	6	4	1	7	10	13	10	2	60	10	0	30	18	
Yarmouth	43	50	66	2	63	30	00	30	45	29	38	1	07	—	4	6	8	9	8	3	5	8	10	7	5	60	10	6	30	18	
P. E. ISLAND																															
Charlottetown	46	14	63	10	38	29	96	30	37	29	23	1	14	89	7	13	7	12	3	1	10	6	5	7	9	60	6	6	25	15W	
NEWFOUNDLAND																															
Burin	47	0	55	10	27																										
Pogo	49	43	54	17																											
Port aux Basques	47	35	59	10	27	29	92	30	34	29	33	1	01	—	6	12	6	4	4	25	1	1	2	6	10	5	60				
St. George's	48	27	58	31	21	29	95	30	46	29	33	1	03	—	8	6	16	4	4	19	2	3	9	6	10	3	60				
St. John's	47	34	52	42	125	29	89	30	33	29	38	1	05	74	5	7	4	7	5	5	3	30	2	4	2	60					
BRUNDA																															
Brundage	32	17	64	46	151	30	13	30	43	29	87	0	62	80	5	2	13	9	2	3	23	17	5	17	1	90					

STATION	DIRECTION OF WIND FROM									Total num-ber of Observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing	2	1	3	2	5	4	6	7	0	30
Didsbury	0	0	3	3	3	12	2	7	0	30
Edmonton	3	1	4	20	4	6	4	15	0	60
Halkirk (Emsburg)	3	1	0	10	13	9	0	20	4	60
Hillsgrove	2	5	0	17	1	13	9	13	0	60
Loveless	5	0	1	0	3	0	39	0	12	60
Parkland (Victoria)	14	1	9	19	8	3	11	12	13	90
Ranfurly (Waitefield)	2	2	4	9	1	2	3	7	0	30
Chaplin	2	3	0	4	11	3	2	4	1	30
Crescent Lake	0	2	10	2	2	2	7	4	1	30
Estevan	1	3	13	18	1	3	10	11	0	60
Fort Qu'Appelle	0	6	1	19	5	18	1	10	0	60
Grenfell (Brownhill)	10	3	4	21	19	8	7	11	7	90
Indian Head	0	7	7	10	0	14	13	9	0	60
Larchmont (Glenbryan)	4	1	2	14	23	4	5	5	2	60
Moosomin	4	0	0	9	0	0	5	4	0	22
Muenster (St. Peter's Monastery)	0	0	3	7	1	2	11	6	0	30
Onion Lake	4	0	0	3	0	0	5	4	0	22
Pense (Gatesgarth)	0	0	3	7	1	2	11	6	0	30
Wasaca	0	0	3	7	1	2	11	6	0	30
MANITOBA—										
Berens River	2	11	9	16	1	9	6	10	16	80
Brandon	2	5	2	33	3	19	7	19	0	90
Hillview	10	6	1	13	9	4	2	5	10	60
Moose Horn Bay (Antikensville)	14	4	7	9	2	6	8	4	6	60
Morden	16	1	4	6	9	11	2	7	4	60
Oak Bank										
Stony Mountain										
ONTARIO—										
Agincourt	12	0	18	6	2	18	6	27	1	90
Alton	13	3	0	8	5	5	3	28	25	90
Beatrice	24	5	5	3	12	1	4	3	3	60
Birnam	3	4	6	5	12	3	9	16	2	60
Clinton	28	4	3	5	13	2	5	0	0	60
Cottam	24	4	4	13	7	3	14	7	14	90
Gravenhurst										
North Bruce	6	2	0	2	3	3	9	5	0	30
Orillia	24	3	7	3	17	0	4	2	0	60
Owen Sound	7	3	2	2	2	3	5	6	0	30
Point Clark	6	13	22	5	2	16	20	6	0	90
Port Dover										
Stoney Creek	3	0	2	2	0	2	3	11	7	30
Uplands										
Wexford										
QUEBEC—										
Abitibi	28	3	13	0	20	4	19	3	0	90
Anticosti, W. Pt.	11	13	10	4	23	2	11	16	0	90
Anticosti, Heath Point	7	22	7	1	3	24	10	5	11	90
Bicquet	6	26	0	0	10	9	15	7	17	90
Brome	28	0	3	1	15	4	34	3	2	90
Cape Chatte	5	8	19	0	3	2	34	2	17	90
Cape Magdalen	7	4	7	3	13	2	7	41	6	90
Cap Rouge	18	4	0	0	0	0	0	8	0	30
Chicoutimi	0	25	1	3	0	11	0	25	25	90
Clarke City										
Manouan Crossing										
White Shore Lake										
NEW BRUNSWICK—										
Dalhousie	1	0	11	2	0	1	14	1	0	20
Moncton	1	6	1	4	3	1	2	10	2	30
Pt. Lepreaux	10	9	12	5	2	15	13	12	0	78
Sussex	0	3	0	0	0	3	0	2	22	30
NOVA SCOTIA—										
Kentville	1	1	8	0	5	3	6	6	0	30
Parrsboro										
Port Hastings	0	4	0	11	2	9	0	4	0	30
Sable Island, E. Pt.										
Truro	22	12	3	2	14	14	14	5	4	90
Whitehead										

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
APRIL 1913.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.....				.04	.34	.41	.37	.44	.46	.55	.50	.40	.38	.26	.12			
Salmon Arm.....			.06	.28	.52	.66	.67	.67	.70	.69	.60	.63	.66	.55	.28	.07		
Vancouver.....			.07	.27	.35	.41	.45	.52	.49	.45	.46	.46	.43	.36	.25	.02		
Agassiz.....			.10	.26	.43	.52	.43	.52	.45	.45	.40	.33	.24	.05				
Traquille.....																		
Summerland.....			.04	.33	.55	.63	.66	.68	.64	.67	.67	.69	.63	.55	.42	.02		
Kamloops.....			.03	.30	.53	.58	.53	.60	.63	.57	.49	.43	.23	T				
Harper's Ranch.....		.02	.09	.21	.51	.59	.60	.61	.61	.59	.59	.57	.36	.24	.07			
Edmonton.....			.04	.33	.60	.71	.79	.81	.78	.75	.77	.76	.72	.51	.14	.02		
Lethbridge.....			.02	.40	.56	.65	.67	.70	.72	.76	.75	.74	.62	.54	.31	.01		
Lacombe.....			.01	.36	.71	.83	.85	.81	.89	.85	.83	.81	.75	.78	.34			
Medicine Hat.....																		
Fort Duvvegan.....																		
Fort Vermilion.....			.09	.31	.50	.54	.65	.71	.70	.68	.69	.65	.59	.50	.23	.02		
Battleford.....			.08	.38	.70	.75	.74	.74	.74	.79	.85	.79	.77	.66	.22			
Indio Head.....			.03	.36	.63	.66	.67	.65	.69	.61	.59	.51	.26	.05				
Moosejaw.....			.07	.37	.54	.70	.70	.63	.63	.66	.61	.67	.66	.56	.28	.02		
Scott.....		.08	.37	.64	.70	.71	.70	.68	.76	.72	.71	.72	.65	.36	.12	.01		
Rosthern.....			.05	.15	.44	.58	.65	.61	.67	.69	.71	.69	.64	.53	.23	.05		
Brandon.....			.19	.62	.69	.70	.77	.75	.68	.62	.63	.52	.35	.02				
Winnipeg.....			.05	.45	.59	.63	.72	.74	.73	.73	.70	.64	.32	.25				
Haileybury.....			.06	.47	.54	.61	.62	.63	.69	.69	.69	.67	.67	.63	.55	.14		
Woodstock.....			.01	.07	.41	.59	.64	.65	.68	.65	.66	.64	.58	.44	.12			
Lindsay.....			.15	.43	.56	.63	.63	.60	.66	.69	.63	.61	.57	.25				
Barris.....																		
Toronto.....			.02	.29	.49	.57	.61	.63	.64	.64	.65	.67	.64	.60	.42	.09		
Kingston.....			.03	.16	.44	.47	.57	.67	.70	.67	.67	.66	.60	.32	.26	.03		
Ottawa.....			.02	.29	.45	.46	.54	.64	.75	.78	.71	.72	.74	.66	.48	.09		
Montreal.....			.06	.40	.53	.60	.66	.72	.73	.75	.73	.73	.72	.65	.43	T		
Cap Rouge.....			.02	.27	.51	.55	.56	.58	.62	.62	.61	.61	.65	.62	.41	.02		
Quebec.....			.18	.46	.52	.54	.55	.56	.58	.60	.62	.68	.64	.37	.04			
Ste Anne de la Poentiere.....		.06	.33	.49	.57	.58	.58	.61	.62	.62	.60	.55	.56	.45	.07			
Sherbrooke.....																		
Fredericton.....			.03	.39	.44	.49	.47	.50	.54	.52	.49	.46	.35	.33	.26	.04		
Charlottatowo.....			.09	.36	.38	.39	.46	.50	.45	.41	.47	.43	.34	.12				
Nappan.....			.11	.26	.35	.35	.39	.43	.43	.44	.43	.43	.35	.30	.10			
Wolfvilla.....			.01	.29	.42	.49	.50	.47	.44	.48	.43	.41	.37	.37	.28	.04		
Kentville.....			.10	.30	.45	.46	.45	.42	.44	.43	.40	.37	.36	.32	.13			

## SUMMARY OF SUNSHINE RECORDS

	Victoria	Salmon Arm.	Vancouver.	Akassiz.	Tranquille.	Sumnerland.	Kamloops.	Harper's Ranch.	Edmonton.	Lethbridge.	Iacombe.	Macdougall Hat.	Fort Vancouver.	Fort Vernon.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosbush.	Brandon.	Winnipeg.	Haileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Ste. Anne de la Pointe.	Sherrbrook.	Frederton.	Charlottetown.	Nappan.	Wolville.	Kentville.
Registered duration in hours .....	138	211	150	126	...	216	148	170	232	224	260	...	265	227	168	213	238	190	203	230	184	192	...	209	194	220	232	260	190	201	...	160	132	133	150	139		
Percentage of possible duration ...	51	51	36	31	...	52	36	41	56	41	62	...	45	54	41	52	57	51	48	49	56	46	48	...	52	45	54	62	49	46	50	...	39	33	33	37	34	
Difference from average .....	-14	-	-	+1	...	-	-	-	-	-	-	...	-	+3	0	-	-	-	+2	-1	-	+1	+1	...	+5	+2	+7	+12	-	+3	-	-	-	-	-	-	-	-
Maximum percentage in one day .....	74	91	90	71	...	91	71	78	83	86	88	...	83	82	73	90	94	81	80	81	94	86	81	...	93	91	91	98	89	86	93	...	89	83	70	89	89	
Date of maximum .....	17	17	22	21	...	24	21	18	15	17	4	...	13	11	24	12	20	19	13	13	16	29	17	...	29	36	14	17	30	23	17	...	24	27	24	23	22	
Number of days completely clouded .....	2	1	5	9	...	4	6	5	2	2	1	...	4	0	2	3	1	3	4	3	5	6	7	...	4	3	2	2	5	6	4	...	6	8	6	8	8	



*Thunder recorded:*

1. Haliburton, Clemens.
2. Birnam, Cottam.
3. Elora, Paris, Clinton, Lucknow, Brantford, Westminster, Georgetown, Brantford (Bow Park), Cottam, Port Stanley, London, Port Burwell.
4. Warton, Westport, Port Arthur.
5. Victoria, Summerland, Okanagan Mission, Cleinens, Campsie, Vavenby, Koenigs, Port St. James, Sion, Lunnford.
6. Medicine Hat, Lumby.
- 7.
- 8.
- 9.
10. Port Arthur.
- 11.
- 12.
- 13.
- 14.
15. Kenora.
- 16.
17. Schreiber, Bruce Mines, Emsdale, Port Arthur.
18. Agincourt, Beatrice, Elora, Ronville, Montague, Port Dover, Haliburton, Clinton, Lucknow, Brantford, Peterboro, Wexford, Orillia, Brome, Shawinigan Falls, Deer Park, Hillier, Georgetown, Westport, Quebec, Montreal, Ottawa, Kingston, Parry Sound, Lindsay, Hamilton, Madoc, Goderich.
19. Markdale, Peterboro, Brome, New Germany, Westport, Fredericton, Ottawa.
20. Westport, Williamsburg, Chilliwaak, Gull Lake.
21. Schreiber, Cartwright, Brantford, Banff, Edmonton, Revelstoke, Ranfurly.
22. Haliburton, Clinton, Lucknow, Brantford, Birnam, Westminster, Port Arthur, Quatsino, Perry Siding, Goderich.
23. Agincourt, Elora, Rutherglen, Kakabeka Falls, Madoc, Bruce Mines, Haliburton, Paris, Clinton, Lucknow, Brantford, Wexford, Birnam, Deer Park, Georgetown, Emsdale, Port Arthur, Guelph, Hamilton.
- 24.
25. White Rock, Fredericton, Bermuda.
26. Montague, Westport, Emsdale, Ottawa, Kingston, Lindsay, Terrace, Springdale.
27. Westport, Bark Lake (River Desert), Halifax, Crescent Lake, Port Qu'Appelle.
28. Moncton, Cartwright, Windsor, N.S., Truro, Wolfville, Armstrong.
29. Treherne, Oakbank, Charlottetown, Winnipeg.
30. Treherne, Oakbank, Cranbrook.

*Auroras recorded:*

1. Melfort IV, Sion IV, Fort Vermilion.
2. Fort Vermilion.
3. Mistassini IV, Sion IV, Fort Vermilion.
- 4.
- 5.
- 6.
7. Mistassini IV.
8. Lucknow IV, White Shore Lake IV, Edmonton III, Pambrum, Waseca, Clemens IV, Ranfurly IV, Halkirk, Campsie IV, Peace River Crossing.
9. Cape Magdalen, White Shore Lake IV, Mistassini III, Quebec IV, Haileybury III, Clemens IV, Ranfurly IV, Beaver Lodge II.
10. Mistassini III, Aitkensville IV, Haileybury, Pambrum II.
11. Aweme IV, Kakabeka Falls IV, Mistassini IV, Aitkensville IV, Clemens IV, Hillsdown IV.
- 12.
13. White Shore Lake IV, Aitkensville IV.
14. Aitkensville IV, Ranfurly III.
15. Mistassini IV, Brantford.
16. Atlin III.
17. Qu'Appelle, Edmonton III.
- 18.
- 19.
- 20.
- 21.
22. Aitkensville IV.
- 23.
24. Ranfurly II, Sion III.
- 25.
26. Aweme II.
27. Sion III.
28. Sion III.
29. Georgetown IV.
- 30.

## FORECASTS FOR APRIL 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1200. These were divided as follows:—

DISTRICT	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	78	71	6	1	94.9
Saskatchewan.....	78	61	15	2	87.8
Manitoba.....	78	64	11	3	89.1
Lake Superior.....	110	82	24	4	85.5
Lower Lake Region.....	112	93	13	6	88.8
Georgian Bay.....	110	91	12	7	88.2
Ottawa Valley.....	93	76	13	4	88.7
Upper St. Lawrence.....	94	78	13	3	89.9
Lower St. Lawrence.....	97	76	17	4	87.1
Gulf.....	114	81	21	12	80.3
Maritime Provinces West.....	118	91	23	4	86.9
Maritime Provinces East.....	118	83	27	8	81.8
Total.....	1200	947	195	58	87.0

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
May 23rd, 1913.



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**DEPARTMENT OF MARINE AND FISHERIES, CANADA.**  
**METEOROLOGICAL SERVICE.**

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# Monthly Weather Review

VOL. XXXVII.

MAY, 1913

No. 5

## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

Mean temperatures showed great irregularity as regards difference from average. On Vancouver Island, at the mouth of the Fraser, in the Okanagan Valley and the Kootenays the difference was less than 1°, but in some cases positive and in others negative. Elsewhere in the Province mean temperatures varied from 1° to 4° below average.

### WESTERN PROVINCES.

The differences from average temperature were generally negative and about 1°. There were, however, many local exceptions showing the average to have been exceeded by less than 1° and, especially in Manitoba, a few instances of negative departures from average between 2° and 3°. Sharp frosts occurred frequently until the 13th. Maximum temperatures of 60° were recorded on the 18th, the weather continuing warm from that date until the end of the month. 90° was recorded in many districts on the 25th.

### ONTARIO.

In nearly all districts of the province mean temperatures were about 1° less than average. At a few points, however, the average was exceeded by less than 1°, while on the Ottawa River, in the Georgian Bay and Lake Huron Counties the negative departure from average was more than 2°. Sharp frosts on the 10th and 11th did some damage to early vegetables in the southern counties. Temperatures of 80° were recorded during the first five days of the month, but from the 7th to the 29th the weather was very cool, maximum temperatures not often exceeding 60°.

### QUÉBEC.

Along the Middle St. Lawrence mean temperatures were 1° less than average and along the lower St. Lawrence and Gulf 1° to 4°. The first week was warm, temperatures exceeding 80° on the 4th, 5th and 6th. The remainder of the month, however, was cool with frosts recorded on 7 to 9 days. The frost which occurred on the 15th was heavy, minimum temperatures on that date varying from 13° to 25°.

## MARITIME PROVINCES.

Frost was recorded on the 10th, 15th to 18th, and the 21st. Maximum temperatures were less than 50° on many days, seldom exceeding 60°. The general difference from average was negative and about 3°.

## PRECIPITATION.

## BRITISH COLUMBIA.

Precipitation was well above average on the Fraser River and generally in the Okanagan Valley. In the East Kootenay the average was not exceeded, while there was a deficiency on Vancouver Island, in the West Kootenay, and along the Thompson and the North Columbia Rivers.

## WESTERN PROVINCES.

Snow or rain was recorded on an average of 6 days only, while the total amount was very considerably below average.

## ONTARIO.

Except locally in the District of Thunder Bay and along the Lower Ottawa River, the total precipitation was considerably less than average, falling on about 7 days.

## QUÉBEC AND MARITIME PROVINCES.

Near the confluence of the St. Lawrence and Ottawa Rivers there was a small excess over average precipitation, but from Quebec City eastward to Chaleur Bay there was a small deficiency. In New Brunswick and Nova Scotia an excess of 25% was generally recorded, but there were local exceptions showing deficiency.

## HIGH AREAS.

Eight areas of high pressure were charted. Two first appeared on the boundary line between Alaska and British Columbia, two far to the northward of the Western Provinces, and four on the coasts of the North Pacific States.

Six of the areas passed either over or to the northward of the Great Lakes, while the remaining two drew southwards to the region of the Gulf of Mexico. The systems were for the most part not very pronounced, but attended by very cool conditions causing unseasonably low temperatures to prevail in all portions of the Dominion for a large portion of the month.

## LOW AREAS.

Nine areas of low pressure were sufficiently defined to allow of their paths being traced. Three first appeared in Northern British Columbia, one in Northern Alberta, two in the West and two in the South Pacific States, and one to the northward of Lake Superior.

The areas were all of feeble energy, except the one which appeared in Lower California on the 25th, which although feeble when drifting across the continent, yet when reaching the Middle Atlantic States recovered northeastwards and suddenly developed unusual energy, passing between the 29th and 30th over the Maritime Provinces and Newfoundland as a severe storm. Its attendant gales were very generally experienced throughout Eastern Canada.

## ATMOSPHERIC PRESSURE.

The values of the mean atmospheric pressure at the Telegraph Stations indicate that during May the barometer readings exceeded the average throughout Canada, except in Nova Scotia and Prince Edward Island, where values were subnormal. Positive departures were generally more than 0.05 of an inch, and reached 0.10 of an inch in Northern Alberta and 0.09 of an inch in Ontario. Negative differences in Nova Scotia reached 0.05 of an inch, and in Prince Edward Island 0.02 of an inch.

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N, Long. 80° 47' W) on May 6th, 1913.

Instrument—Dines Meteorograph.

Fell 145 km. distant, N. 65° E.

Beginning of Ascent—1 a.m. G.M.T.

Maximum Height 20.1 km.

Barometer—740 mm.

Minimum Temperature —68.5° C.

Temperature = 22.0° C.

Direction of flight at Beginning—Northeast.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	740	22.0	
0.5	703	21.5	19.5
1.0	663	18.0	17.0
1.5	624	14.0	13.5
2.0	587	10.0	9.0
2.5	552	6.0	5.0
2.8	530		3.0
3.0	518		1.5
3.3	502		0.0
3.5	488	0.0	2.0
4.0	458	— 4.0	— 6.0
4.5	430	— 8.0	— 9.0
4.8	412	—11.0	
5.0	402	—12.5	
5.15	395	—12.0	—14.0
5.45	380	—12.0	—15.0
5.5	377	—13.0	—15.0
5.6	374	—13.5	—14.5
6.0	353	—15.0	—16.5
6.5	330	—18.0	—19.0
6.6	326		—19.5
7.0	308	—22.0	—23.0
7.5	287	—25.5	—26.5
8.0	267	—30.0	—31.5
8.5	249	—33.5	—35.5
9.0	231	—37.5	—40.0
9.5	214	—42.5	—47.5
10.0	199	—46.5	—50.5
11.0	172	—54.5	—57.5
12.0	145	—63.0	—65.5
12.6	132		—67.0
12.9	126		—67.5
13.0	124	—67.0	—67.5
13.15	120	—66.5	—68.5
14.0	104	—61.0	—62.0
14.5	95.5		—60.5
15.0	88	—60.0	—61.5
15.6	80	—59.0	—60.0
16.0	75	—59.5	—60.0
17.0	63.9		—60.0
18.0	54.4		—58.5
19.0	46.3		—58.5
20.0	39.8		—59.0
20.1	39		—59.0



## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on May 9th, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G. M. T.

Barometer—743 mm.

Temperature=2.0 C.

Direction of Flight at Beginning—South.

Feil—310 km. distant S. 80° E.

Maximum Height—16.0 km.

Minimum Temperature=—57.5° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	743	2.0	
0.5	723	— 1.0	
0.7	708	— 2.0	— 3.0
1.0	680		— 3.5
1.5	638	— 4.0	— 6.5
2.0	599	— 6.0	— 8.5
2.5	560	— 8.0	— 9.5
3.0	524	— 9.5	—10.5
3.5	491	—11.0	—12.5
4.0	460	—14.5	—15.5
4.5	429	—18.0	—19.0
5.0	403	—20.5	—21.5
5.5	375	—24.0	—25.5
6.0	350	—25.0	—27.0
6.5	327	—27.0	—30.0
7.0	304	—32.0	—33.0
7.5	283	—36.5	—38.0
8.0	263	—41.0	—42.5
8.5	243	—45.5	—47.5
9.0	225	—50.0	—51.5
9.5	209	—53.5	—54.5
10.0	193	—56.0	—56.5
10.2	187		—57.0
11.0	165		—56.0
12.0	142	—54.0	—55.5
13.0	122	—53.5	—55.0
14.0	103		—52.0
15.0	88		—57.5
16.0	75		—56.0

## WINDS, MAY, 1913

PROVINCES AND STATIONS	Total Mileage	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Calms	Strong Wind	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	6037	436							
Prince Rupert.....	6153	398	24	W, SW	3-19		7	15	SW
Victoria.....	6128	333	20					18	E
Vancouver.....									
Kamloops.....	4148	264							
ALBERTA.									
Edmonton.....	5226	303	21	NW	30		1	18	NW
Calgary.....	4977	241	19	NW	2-25		2	15	NW
SASKATCHEWAN.									
Battleford.....	357	160	31	SE, NW	9-28		7	15	NW
Prince Albert.....	758	184							
Swift Current.....									
Qu'Appelle.....	728	371	25	SE	10		5	23	NW
MANITOBA.									
The Pas.....	6179	324							NE
Winnipeg.....	8142	445	25	N, NW	12		13	13	NW
ONTARIO.									
Port Arthur.....	768	467	33	E	14		11	12	NE, NW
White River.....	622	337	26	W	1		6	13	NW
Cochrane.....	521	337	22	SE	21		2	18	SW
Tarry Sound.....	693	369	22	NW	8-9		5	20	SW
Souhampton.....	7402	732	42	NE	26		9	6	
*Pelee Island.....	7189	455	27	NW	15		8	20	NW
Woodstock.....	752	441							NW
Guelph.....	8748	610	33	E	15	2	17	9	W
Toronto.....	623	311	24	SW	18		4	19	NE
Kingston.....	3891	192	14	W	9			13	W
Stonchiffe.....									
Ottawa.....									
QUEBEC.									
Montreal.....	9682	503	28	E	2		19	9	NW
Sherbrooke.....									
Quebec.....	9076	582	37	SW	6	3	16	8	NE
Father Point.....	8214	478	33	W	25	2	16	7	E
Anticosti, SW.....	10124	597	38	NE	11	4	15	9	SE
Harrington.....									
NEW BRUNSWICK.									
Pt. Escuminac.....	3159	470	22	W	12		7	11	NW
Fredericton.....	8136	666	40	N	30	3	9	15	SW
St. John.....	8712	634	37	W	30	4	12	12	E
Pt. Lepreau.....									
NOVA SCOTIA.									
Yarmouth.....	8721	539							S, NE, N
Wolfville.....									
Halifax.....	8519	589	40	SW	30	1	17	13	NE
Sable Island.....	11428	768	50	SW	30	7	13	10	NW
Flat Point.....	9167	770	34	NE, N	17-20	9	14	9	NE
PRINCE EDWARD ISLAND.									
Charlottetown.....	5547	316	30	SE	30	1	1	19	SW, NW, NE

\* 23 days only.

## TEMPERATURE AND PRECIPITATION AT STATION 3 IN THE DOMINION OF CANADA, MAY, 1913.

\*Stations not furnished with Registering Thermometers

STATION	TEMPERATURE																PRECIPITATION						
	Latitude N	Longitude W	Elevation above sea level in feet	Mean.	Difference from average	Yr's Observations	Highest.	Date.	Lowest	Date.	Mean daily range	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.				
BRITISH COLUMBIA																							
S. Vancouver Island																							
Alberni (Heaver Creek)	49 15	124 49	300	52.0	+2.8	18	81.0	31	29.0	5	21.4	2.51	-0.61	0.67	11	20							
Clayoquot	49 11	123 55	27	52.0	+2.3	14	68.0	31	38.0	4-14	13.2	5.78	-1.19	1.12	13	18							
Cloose				49.5	+1.3	1	69.0	31	36.0	4	13.1	5.35	-	0.87	14	17							
Cowichan (Tzouhalem)	48 25	123 42	170	53.3	-	7	76.1	31	32.2	22	19.6	1.84	-	0.57	9	22							
Departure Bay				52.8	-	1	75.3	31	36.4	5	17.9	1.96	-	0.66	11	20							
Gulfis Bay				50.9	-	1	73.0	31	34.0	1	19.1	1.58	-	0.38	11	20							
Nanaimo	49 10	123 37	125																				
Nanose Bay	49 17	124 12	130	50.8	-	2	74.0	31	35.0	5-16	19.8	1.13	-	0.23	13	18							
Salt Spring Island	48 50	123 20		52.1	-	1	72.0	31	36.0	16	15.9	2.24	-	0.91	10	21							
Sooke	48 41	123 44	25																				
Victoria	48 24	123 19	55	53.9	+0.4	20	75.0	31	37.2	5	17.0	0.80	-0.55	0.28	10	21							
N. Vancouver Island																							
Holberg	50 39	128 18		48.8	-	3	64.0	8-31	34.8	6	11.8	11.22	-	2.94	22	9							
Swanson Bay	50 37	126 53		47.3	-	4	65.0	17	31.0	3	13.1	12.74	-	2.85	24	7							
Triangle Island			680																				
Quatsino	50 32	127 40		49.5	-3.8	17	64.0	19	35.0	4-6	15.4	11.80	-5.99	5.97	17	14							
Lower Fraser River																							
Agassiz	49 14	121 31	52	52.2	-2.9	21	78.0	31	33.0	5	24.3	6.08	+1.60	0.82	12	19							
Chilliwack	49 10	121 57	21	53.7	-1.6	12	78.0	31	34.0	5	19.3	3.19	-0.63	0.67	14	17		2					
Hop	49 23	121 25	500	54.3	-	4	80.0	31	31.5	5	22.3	2.40	-	0.88	13	18							
Ladner	49 05	123 4				13			35.0	6		3.30	+0.86	0.00	7	24							
New Westminster	49 13	122 54	330	53.3	-1.0	24	77.2	21	38.0	6	17.4	5.03	+1.79	1.47	14	17							
North Nicomen	49 12	122 2	89	54.6	-1.0	21	79.0	31	33.0	5	21.0	3.57	-1.13	0.69	14	17							
Pemberton Hatchery	50 20	122 33		51.7	-	5	78.0	31	29.0	6	23.0	1.19	-	0.28	9	22							
Pemberton Meadows				52.0	-	1	76.0	31	30.0	6	27.0	1.58	-	0.44	11	20							
Ruskin (Stave Falls)	49 18	122 23	125	54.6	-	4	82.0	31	34.0	4	19.6	8.13	-	0.87	16	15							
Steveston (Garry Point)	49 21	123 17		52.0	-0.1	18	67.0	31	38.0	18	13.7	3.46	+1.17	1.20	11	20							
Vancouver	49 17	123 5	136	54.1	+0.5	13	72.2	31	36.7	5	16.1	4.43	+0.85	1.01	15	16		1					
Upper Fraser River																							
Bahine Lake	55 38	126 26																					
Barkerville	53 02	121 35	4180	41.9	-2.1	25	62.0	24-29	15.0	5	21.3	3.13	+0.62	0.50	20	11							
Chilcoot (Big Creek)	51 40	123 0	3100	44.8	-1.7	10	69.0	31	19.0	7	27.9	0.68	-0.41	..	3	28		2					
Fort George				46.2	-	1	70.0	18	21.0	5	25.4	1.92	-	0.30	11	20							
Fort St. James (Stuarts Lake)	54 28	124 12	2280																				
Hydraulic				49.9	-	1	74.0	23-25	22.0	5	29.0	1.23	-	0.31	11	20		1					
Quesnelle	52 59	122 30	1700	51.1	-0.4	17	74.0	19-24	22.0	4	26.6	1.36	+0.57	0.50	7	24		1					
Okanagan Valley																							
Duck Lake	50 3	119 20	1400	54.4	-	1	84.0	30	28.0	4	24.4	1.70	-	0.54	9	22							
Hedley	49 35	120 10	1771	53.3	-	8	84.0	31	31.0	4	23.4	1.18	-	0.48	10	21							
Hedley (Nickel Plate)				30.9	-	8	66.5	30-31	17.0	5	19.7	1.11	-	0.59	7	24							
Keremoss				56.5	-	4	81.0	31	37.5	5	29.1	1.60	-	0.73	6	25		1					
Kelowna (Okanagan Mission)	49 15	119 29	1200	55.5	+0.0	15	80.0	23-30	27.0	5	24.7	1.91	+0.88	0.75	8	23		2					
Penticton	49 29	119 35		57.7	-	7	81.0	30	37.5	5	25.4	2.21	-	0.91	14	17							
Princeton	49 29	120 29	1650	51.0	-0.8	16	83.0	31	22.0	5	30.4	0.75	-0.63	0.40	5	26							
Richlands				48.9	-	1	77.0	30	23.0	3-5	30.9	1.94	-	0.48	11	20							
Summerland	49 36	119 40	1100	54.8	-	6	81.0	22-31	33.0	5-6	22.0	1.63	-	0.60	8	23							
Vernon (Coldstream Ranch)	50 14	119 13	1582	53.5	-0.9	19	80.0	30	27.0	4	24.9	1.56	+0.28	0.58	10	21							
West Kootenay																							
Crawford Bay	49 45	116 45	2000	53.1	-	3	82.0	31	27.0	3	22.2	0.80	-	0.26	10	21							
Creston				52.3	-	1	82.0	29	26.0	3	22.7	1.49	-	0.33	9	22							
Fauquier (Needles)				53.5	-	4	82.0	26-31	24.0	4	28.8	2.34	-	0.51	9	22							
Grand Forks	49 2	118 27		54.2	-	3	84.0	30	28.0	1	25.9	2.21	-	0.42	13	18		1					
Greenwood	49 5	118 49		51.0	-	2	83.0	31	23.0	1	29.7	2.59	-	0.70	12	19							
Hawser				52.1	-	1	78.0	31	31.0	4	20.1	0.90	-	0.30	12	19							
Kaslo	49 52	117 0	1752	50.2	-	4	75.0	31	29.0	4	20.3	0.81	-	0.26	9	22							
Nakusp				51.4	-	2	79.0	30	24.5	4	22.7	1.68	-	0.36	13	18							
Nelson	49 29	117 21	1760	54.2	+0.5	11	86.0	31	30.0	4	23.2	2.10	-0.68	0.50	11	20							
Perry Siding	49 5	117 48	3400	53.8	-	1	81.0	30	36.0	14	24.7	2.33	-	0.54	15	16		2					
Rossland																							
Waneta			1358	51.3	-	1	81.0	31	25.0	1-4	24.1	2.51	-	0.75	14	17		1					
East Kootenay																							
Cranbrook	49 30	115 50																					
Tobacco Plains (Elko)	49 1	115 5	2634	52.3	+0.1	17	82.1	31	23.0	1	21.5	2.28	+0.01	0.51	8	23		1					
Wilmer	50 34	116 14		49.1	-	4	77.0	31	26.0	6	21.9	0.79	-	0.27	8	26							
Thompson River																							
Armstrong							1 82.0	30	22.0	4	-	1.33	-	0.56	7	24							
Ashcroft	50 32	119 7	1180	59.8	-	1	85.0	31	31.0	4	25.7	0.41	-	0.13	6	25		1					
Enderby				54.4	-0.6	11	82.0	30-31	22.0	3	27.6	1.40	-	0.43	10	21							
Harper's Ranch	50 41	120 29	1245	54.4	-	1	81.7	31	29.0	5	24.2	5.00	-	0.50	9	22							
Kemlopa	50 0	120 39	2120	57.2	-1.1	18	81.0	30	30.0	5	23.9	0.60	-0.43	0.33	9	22							
Nicola Lake				51.1	-0.5	18	73.0	25	25.0	4	24.1	0.71	-	0.35	4	27							
Salmon Arm	50 42	119 35	1162	54.1	-3.3	12	84.0	30	25.0	4	25.7	1.33	-	0.56	6	25		2					
Salmon Arm (Exp Farm)				63.5	-	2	80.0	31	24.0	3	25.3	1.26	-	0.46	4	27							
Tappea				57.0	-	1	88.0	31	25.0	4	33.7	1.09	-	0.49	9	22		3					
Tranquille	50 41	120 29																					
North Columbia River																							
Glacier	51 14	117 29	4072	40.4	-4.4	14	62.0	26	18.0	4	15.3	1.36	-0.35	0.30	7	24							
Golconda	51 0	118 6	1476	49.0	-1.4	12	84.0	29	21.0	4	25.7	0.40	-0.40	0.15	3	28							
Lowermore				53.2	-	1	80.0	25	18.0	4	29.0		-	-	-	28							
Revelstoke	51 16	116 55	2250																				

STATION.	TEMPERATURE			PRECIPITATION				No. of fair days	No. of auroras	No. of thunderstorms							
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average	Yr.'s Observations	Highest.				Date	Lowest.	Date	Mean daily range.	Amount	Difference from average.	Highest fall in month.
BRITISH COLUMBIA—CON.																	
<i>North Coast</i>																	
Bella Coola .....	52	10	126 54	150	49.5	-2.6	15	68.5	19	23.0	4	19.4	4.37	+2.86	1.13	12 19	
Khatada River .....	54	18	130 18	170	48.6	—	5	62.0	9	36.0	5	11.1	6.75	—	0.97	23 8	
Prince Rupert .....	54	18	130 18	170	48.6	—	5	62.0	9	36.0	5	11.1	6.75	—	0.97	23 8	
Stewart .....	56	1	130 1	215	45.8	—	3	66.0	17	27.0	5	21.6	2.58	—	0.28	15 16	
Terrace .....	54	18	130 18	170	49.8	—	1	67.0	17-18	28.0	5	18.0	1.81	—	0.29	13 18	
<i>Queen Charlotte Islands</i>																	
Islands Bay .....	52	17	131 7	5	45.3	—	5	56.0	10	36.0	4	8.2	9.70	—	2.50	15 16	
Masset .....	53	58	132 9	30	46.6	-2.4	15	58.0	23	32.0	4	11.4	3.10	-1.66	0.75	17 14	
<i>Vukon Boundary</i>																	
Atlin .....	59	35	133 28	2240	41.3	—	7	56.5	21	19.0	5	18.6	0.28	—	0.17	3 28	
YUKON—																	
Carcross .....	60	11	134 34	2171	40.4	—	4	58.0	12-22	20.0	1	20.6	0.28	—	0.13	3 28	
Dawson .....	64	4	139 29	1200	40.4	—	4	58.0	12-22	20.0	1	20.6	0.28	—	0.13	3 28	
MACKENZIE—																	
Pt. Resolution .....	61	0	113 0	800	40.4	—	4	58.0	12-22	20.0	1	20.6	0.28	—	0.13	3 28	
ALBERTA—																	
<i>N. Saskatchewan River</i>																	
Campeau .....	54	8	111 42	45.8	—	1	77.0	25	17.2	5	27.9	0.36	—	0.07	12 19	2 1	
Coronation .....	54	8	111 42	45.8	—	1	77.0	25	17.2	5	27.9	0.36	—	0.07	12 19	2 1	
Dayland .....	55	52	112 17	46.0	—	1	81.0	27	12.0	1	29.5	—	—	—	—	—	
Edmonton .....	53	33	113 30	2158	45.3	—	4	78.0	26	19.0	6	26.3	0.92	—	0.25	9 22	1
Enslin .....	52	0	112 0	2795	45.6	-1.8	31	78.5	26	23.0	12	25.1	0.79	-0.97	0.29	8 23	2 2
Gitli Edge .....	52	59	110 43	45.4	—	3	76.0	26	22.2	4	21.5	0.62	—	0.21	5 26	—	
Hall Creek (Emaburg) .....	52	17	112 10	46.4	—	4	79.0	30	22.0	1-5	23.2	0.77	—	0.29	6 25	2	
Lloydminster .....	52	30	111 59	47.4	—	1	78.0	27	24.0	5	24.5	5.15	—	3.09	3 28	—	
Lovelock .....	52	30	111 59	46.5	—	4	80.0	26	23.0	5	25.1	9.57	—	0.27	4 17	—	
Pakan (Victoria) .....	54	0	112 31	46.9	—	8	77.2	27	21.9	6	25.3	1.38	—	0.28	14 17	4 6	
Ranfurly (Waitefield) .....	53	29	111 38	2000	47.4	—	1	80.0	25	22.0	12	26.0	0.77	—	0.20	11 20	2 5
Sion .....	53	54	114 15	45.0	—	75.8	26	16.1	4	25.0	0.22	—</					

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1913.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION								
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days	No. of Auroras	No. of thunderstorms
SASKATCHEWAN—																		
Qu'Appelle River																		
Broadview.....	50 23	102 33	1960	47.8	—	9	91.0	28	25.0	8 23 1	2.07	—	1.50	3 28	..	..	..	..
Brownhill (Grenell P.O.).....	50 23	102 53	1957	46.9	-2.5	14	84.0	28	21.0	13 33.9	2.24	+0.30	0.63	6 25	..	1	..	..
Brownlee.....	50 45	106 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buchanan.....	50 50	102 25	1658	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crescent Lake.....	49 12	103 4	1858	47.3	—	8	87.0	27	22.0	3 23.3	1.28	—	0.85	4 27	..	..	..	..
Fort Qu'Appelle.....	51 7	103 24	.....	48.2	—	2	92.8	27	21.0	8 26.5	1.55	—	0.53	8 23	..	1	..	..
Hubbard (Drumague).....	51 5	103 24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Humboldt.....	52 12	105 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Imperial.....	51 22	105 23	.....	48.0	—	2	84.0	27-30	21.0	12 26.1	0.97	—	0.56	3 28	..	..	..	..
Indian Head.....	50 28	103 40	1924	48.3	-2.5	23	90.0	27	23.0	7 23.3	1.90	-0.08	0.70	7 24	..	..	..	..
Kamsack.....	52 4	104 14	1800	47.9	—	2	88.0	27	22.0	12 24.6	0.52	—	0.28	24 24	..	..	..	..
Manor.....	49 43	102 2	2064	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moose Jaw.....	50 21	105 35	1759	50.8	+0.7	17	91.0	27	19.0	6 28.0	0.97	-1.28	0.43	6 25	..	..	..	..
Moosomin.....	50 0	101 37	1844	46.4	-5.5	12	87.0	27	19.0	8 23.1	0.15	-1.71	0.10	2 29	..	..	..	..
Muenster (St. Peter's Mon.).....	52 0	105 0	1870	46.9	—	2	80.0	30	21.0	13 21.6	2.14	—	1.06	4 27	..	..	..	..
Pilger.....	52 25	105 0	.....	46.6	—	2	82.0	30	23.0	8 23.0	0.52	—	0.19	10 21	..	..	..	..
Penna (Gatesgarth).....	50 20	105 0	1879	48.7	-2.5	18	89.0	27	19.0	12 26.4	1.09	-1.28	0.44	5 26	..	1	..	..
Qu'Appelle.....	50 30	103 47	2115	48.2	-2.5	29	87.0	27	21.0	1 25.2	2.26	-0.01	0.55	9 22	..	5	..	..
Quill Lake.....	52 4	104 14	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Regina.....	50 27	104 37	1885	49.2	+1.0	30	90.0	27	17.0	6 26.6	0.95	-1.05	0.42	10 21	..	..	..	..
Strasbourg.....	51 5	104 37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yarbo (Fairfield).....	50 39	102 4	.....	46.4	—	6	85.0	28	26.0	13 22.7	.....	—	0.30	10 21	..	..	..	..
Yellow Grass.....	49 43	104 9	.....	44.3	—	2	91.0	27	19.0	5 23.7	1.22	—	0.30	10 21	..	..	..	..
Yorkton.....	51 11	102 29	.....	48.1	—	4	89.0	27	24.0	9 23.2	0.59	—	0.27	6 25	..	..	..	..
S. Saskatchewan River																		
Chaplin.....	50 26	106 39	2202	48.4	-3.7	27	94.0	27	21.0	3-5 27.0	0.48	-1.66	0.22	6 25	..	2	..	..
East End (Divide).....	49 31	108 49	.....	45.8	—	5	84.6	27	12.4	1 25.6	0.65	—	0.35	2 29	..	..	..	..
Kelvinhurst (Nashlyn).....	51 46	108 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kindersley.....	49 21	109 29	.....	46.2	—	1	82.0	29	16.0	5 27.2	0.72	—	0.33	10 21	..	3	..	..
Larchmont (Glenbrian).....	49 54	107 27	.....	47.8	—	2	90.0	27	17.0	1 28.8	0.77	—	0.36	5 26	1	2	..	..
Oliver.....	51 20	108 57	.....	45.9	—	3	82.0	29	14.8	1 28.4	0.63	—	0.26	9 22	..	2	..	..
Rathmillen.....	51 20	108 57	.....	50.4	-0.8	26	86.0	27	26.6	6 22.9	1.41	-0.71	1.15	4 27	..	1	..	..
Swift Current.....	50 29	107 45	2439	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
N. Saskatchewan River																		
Battleford.....	52 41	108 20	1620	49.8	-1.8	23	80.0	26-30	25.0	1-17 26.1	0.46	-1.23	0.20	4 27	..	..	..	..
Lloydminster.....	53 18	110 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Luseland.....	52 5	109 34	.....	45.5	—	3	79.0	26	17.0	13 30.9	0.68	—	0.60	4 27	..	..	..	..
Onion Lake.....	53 52	109 59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prince (Meota).....	51 6	109 30	1700	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scott (Ex. Farm).....	51 59	109 30	.....	45.6	—	3	84.9	26	18.2	6 31.1	0.95	—	0.50	8 23	..	..	..	..
St. Walburg.....	53 6	109 29	.....	46.0	—	6	78.0	26	18.0	1 26.0	0.83	—	0.48	4 27	..	..	..	..
Waseca.....	53 6	109 29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
The Saskatchewan Forks																		
Chinogness (Star City).....	52 32	104 13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Duck Lake.....	52 54	106 20	.....	47.3	—	4	82.5	30-31	19.5	13 26.6	1.43	—	0.46	10 21	1	2	..	..
Melfort.....	52 47	104 30	.....	49.2	+0.1	27	80.0	26-30	20.9	13 24.7	0.79	-0.75	0.45	11 20	..	..	..	..
Prince Albert.....	53 10	106 0	1432	46.3	—	3	78.7	27	22.1	13 21.3	1.26	—	0.50	10 21	..	1	..	..
Rosthern.....	52 49	106 20	1657	48.0	-1.5	17	80.7	27	20.4	1 23.1	0.35	-1.24	0.12	3 28	..	..	..	..
Saskatoon.....	52 15	106 30	1571	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lower Saskatchewan River																		
Cumberland House.....	53 56	102 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lost River.....	53 17	104 21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MANITOBA—																		
Qu'Appelle and Assini- boine Rivers																		
Awenne (St. Albans).....	49 42	99 35	1150	50.7	-0.9	27	96.0	28	15.5	8 28.0	1.09	-0.40	0.42	11 20	3	4	..	..
Boiesavan.....	50 25	101 1	1703	48.9	—	2	90.0	28	26.0	2-13 23.0	0.99	—	0.18	10 21	..	..	..	..
Brandon.....	49 51	99 57	1176	48.8	-2.8	26	88.0	27	18.0	8 25.6	1.04	-0.26	0.44	8 23	..	1	..	..
Carberry.....	49 52	99 20	1258	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carman.....	49 31	99 0	872	48.1	—	8	91.0	28	20.0	8 25.4	0.84	—	0.35	8 23	..	..	..	..
Cypress River.....	49 33	99 3	1232	48.1	—	8	91.0	28	20.0	8 25.4	0.84	—	0.35	8 23	..	..	..	..
Hillview.....	49 55	100 33	1400	49.8	-0.3	24	88.0	27	22.0	9 23.0	1.10	-0.75	0.43	11 20	..	1	..	..
Minnedosa.....	50 15	99 50	1699	49.6	—	29	88.0	27	17.0	13	1.33	-0.52	0.57	9 22	1	2	1	..
Ninneton.....	49 24	99 38	1363	48.6	—	2	93.0	27	21.0	8 26.3	.....	.....	.....	.....	.....	.....	.....	.....
Ninga.....	49 14	99 51	1649	48.1	—	4	89.0	27	25.0	8 20.4	1.18	—	0.43	6 25	..	2	..	..
Pierson.....	49 11	101 6	1331	48.1	—	9	93.0	29	24.0	6 26.1	1.04	—	0.40	5 26	..	..	..	..
Pipestone.....	49 34	100 55	1400	49.9	-1.4	26	90.5	28	20.0	8 22.6	0.34	-1.70	0.09	5 26	..	..	..	..
Portage la Prairie.....	49 57	98 17	.....	49.0	—	8	90.0	28	21.0	8 22.9	0.26	—	0.16	3 28	..	..	..	..
Portage la Prairie (2).....	49 56	98 17	.....	45.7	-3.6	20	90.0	28	21.0	2 21.1	1.20	-0.30	0.40	7 24	..	..	..	..
Russell.....	50 59	101 20	.....	48.6	—	9	92.5	28	28.6	18 25.5	0.67	—	0.32	7 24	..	..	..	..
Souris.....	49 36	98 40	1212	49.0	-1.2	18	92.0	27	17.0	8 24.7	0.55	—	0.11	6 25	..	2	1	..
Trelehear.....	49 51	100 55	1444	49.0	—	9	90.0	28	22.0	1 25.2	0.65	—	0.25	4 27	..	..	..	..
Virden.....	49 51	100 55	1444	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
The Red River																		
Almasippi.....	49 14	99 20	.....	50.4	+0.0	11	93.0	27	17.0	8 28.3	0.53	—	0.19	7 24	..	2	..	..
Morden.....	49 11	98 6	978	49.2	—	8	90.0	28	21.0	9 23.4	0.54	—	0.18	7 24	..	2	..	..
Oak Bank.....	49 57	96 42	800	48.8	-0.9	18	85.5	27	22.0	6 22.2	0.82	-1.33	0.19	6 25	..	1	..	..
Stony Mountain.....	50 40	97 14	803	48.4	-3.3	33	90.0	27-28	19.0	8 28.8	0.25	-1.16	0.25	1 30	..	..	..	..
Winnipeg.....	49 53	97 7	760	49.9	-1.2	39	88.8	27	22.1	6 23.5	0.53	-1.48	0.17	8 23	..	1	..	..



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1913.

\* Stations not furnished with Registering Thermometers

STATION.	Latitude N	Longitude W	Elevation above sea level, in feet.	TEMPERATURE.					PRECIPITATION										
				Mean.	Difference from average.	Yr's observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average	Heaviest fall in month	1 Days with .01 or more	No. of fair days	No. of aurora.	No. of thunderstorms	No. of fogs
MANITOBA—Continued																			
<i>Dauphin Lake and River</i>	52 18	97 23	716	47.3	—	7	88.0	25	22.0	8	19.2	0.53	—	0.15	4	27	..	..	..
Berens River.....	51 8	100 2	957	46.9	—	3	83.9	28	20.4	13	17.5	1.30	—	0.30	11	20	1	1	..
Moose Horn Bay (Atkinsville)	51 15	99 33	..	46.9	—	3	83.9	28	20.4	13	17.5	1.30	—	0.30	11	20	1	1	..
<i>Lake Winnipegosis</i>	52 6	101 15	1112	46.1	..	13	79.0	30	22.0	12	21.5	1.51	—	0.73	13	18	..	1	1
Le Pas .....	52 6	101 15	1112	46.1	..	13	79.0	30	22.0	12	21.5	1.51	—	0.73	13	18	..	1	1
ONTARIO—																			
The Lake Superior Districts																			
<i>Rainy River</i>																			
Port Francis.....	49 48	9 32	1102	44.3	— 4.4	14	84.0	27	23.0	7	23.3	1.12	0.78	1.01	4	27	..	3	..
Kenora .....	49 48	9 32	1102	44.3	— 4.4	14	84.0	27	23.0	7	23.3	1.12	0.78	1.01	4	27	..	3	..
<i>Thunder Bay</i>																			
Kakabeka Falls.....	48 23	89 26	912	44.8	—	5	83.0	31	19.0	9	25.6	4.02	—	1.14	15	16	1	2	..
Port Arthur.....	48 27	89 12	644	44.6	— 1.3	32	80.0	31	24.0	14	20.2	3.43	+ 1.26	0.70	18	13	1	1	3
Schreiber.....	48 50	87 15	533	45.8	— 1.9	15	76.2	1	21.1	7	25.6	3.30	—	0.74	12	19	2	1	5
<i>Algoma</i>																			
Bruce Mines.....	46 18	83 55	595	48.9	— 2.4	15	89.0	1-2	26.0	7	22.9	1.60	— 0.60	0.35	11	20	..	1	..
Copper Cliff.....	46 30	80 59	..	44.6	—	2	78.0	2	21.0	10-25	21.7	1.93	—	1.02	9	22	..	..	..
Porcupine.....	45 40	82 14	..	46.6	—	2	69.5	2-4	23.0	26	17.9	1.86	—	0.80	4	27	..	..	..
Providence Bay.....	48 35	85 16	1252	46.6	—	2	69.5	2-4	23.0	26	17.9	1.86	—	0.80	4	27	..	..	..
Timmins (Sandy Falls) ..	48 35	85 16	1252	46.6	—	2	69.5	2-4	23.0	26	17.9	1.86	—	0.80	4	27	..	..	..
White River.....	48 35	85 16	1252	46.6	—	2	69.5	2-4	23.0	26	17.9	1.86	—	0.80	4	27	..	..	..
<i>Nipissing</i>																			
Cochrane.....	49 2	81 0	946	45.6	—	3	82.0	1	20.0	8	24.4	1.75	—	0.64	16	21	..	..	..
Haleybury.....	47 29	79 39	657	49.7	— 0.6	15	87.8	1	23.0	10 11	3	1.22	— 1.88	0.20	10	21	1	..	..
Iroquois Falls.....	47 29	79 39	657	49.7	— 0.6	15	87.8	1	23.0	10 11	3	1.22	— 1.88	0.20	10	21	1	..	..
Montreal River.....	47 8	79 29	..	49.3	—	3	85.0	1	20.0	10 18	3	1.59	—	0.42	8	23	..	..	..
<i>Upper Ottawa River</i>																			
Rutherford (Lake Talon) ..	46 15	74 48	..	50.0	— 2.2	18	82.5	4	24.0	10	26.0	3.32	+ 0.27	0.76	10	21	..	1	1
Stonehill (Rockcliffe) ..	46 9	78 6	557	50.3	— 1.5	36	87.0	4	23.0	15	25.7	2.64	— 0.71	0.58	11	20	..	1	2
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																			
Almonte.....	45 12	76 13	390	52.9	—	2	90.0	4-5	22.5	16	24.1	3.36	—	1.13	7	24	..	..	..
Bloomfield.....	43 59	77 21	260	52.2	— 1.7	15	80.0	5	29.0	10-11	20.2	2.64	— 0.23	1.33	6	25	..	..	..
Hillier.....	44 31	80 2	..	52.1	— 0.6	38	73.8	6	26.1	11 17.2	4	1.16	+ 1.65	0.23	11	20	..	1	5
Kingston.....	44 56	75 57	..	53.1	—	4	85.0	4	28.0	28	22.9	3.70	—	2.00	8	23	..	1	..
Montague.....	45 8	75 43	..	54.3	—	5	87.0	5	20.0	15	28.6	2.50	—	0.56	6	25	..	..	..
North Gower.....	45 8	75 43	..	54.3	—	5	87.0	5	20.0	15	28.6	2.50	—	0.56	6	25	..	..	..
Ottawa.....	45 26	75 42	294	53.2	— 2.6	35	86.0	2-4	30.0	10	20.0	2.87	+ 0.35	1.20	8	23	..	..	..
Renfrew.....	45 26	76 39	418	52.6	— 3.2	26	88.9	2	25.0	8	23.2	1.56	— 0.72	0.63	7	24	..	1	3
<i>Georgian Bay Counties</i>																			
Barrie.....	44 23	79 41	839	49.7	+ 2.0	38	80.0	3-4	24.0	10	22.1	0.99	— 2.21	0.29	6	25	..	2	..
Bentrie.....	45 8	79 20	800	51.8	—	1	85.5	3	27.0	9	20.9	0.60	—	0.25	6	25	..	3	..
Big Chute (Midland P.O.) ..	44 38	79 40	600	51.8	—	1	85.5	3	27.0	9	20.9	0.60	—	0.25	6	25	..	3	..
Coldwater.....	44 38	79 40	600	51.8	—	1	85.5	3	27.0	9	20.9	0.60	—	0.25	6	25	..	3	..
Collingswood.....	44 31	80 2	..	49.3	— 3.7	36	82.0	4	26.0	26	23.5	0.95	— 1.82	0.25	7	24	..	1	..
Gravenhurst.....	44 54	79 20	..	49.3	—	7	83.0	4	24.0	10	23.5	1.95	—	0.50	5	26	..	..	..
Huntsville.....	45 19	79 8	..	49.3	—	6	82.0	4	24.0	10	23.5	1.95	—	0.50	5	26	..	..	..
*Midland.....	44 44	79 53	750	51.2	—	2	83.0	4	23.0	10	24.2	0.87	—	0.29	7	24	..	1	..
Markdale.....	44 37	79 24	775	51.2	—	2	83.0	4	23.0	10	24.2	0.87	—	0.29	7	24	..	1	..
Orillia.....	44 37	79 24	775	51.2	—	2	83.0	4	23.0	10	24.2	0.87	—	0.29	7	24	..	1	..
Owen Sound.....	44 34	80 55	597	49.5	— 2.1	37	83.0	3-4	24.0	10	21.3	1.57	— 1.48	0.34	11	20	..	2	1
Parry Sound.....	45 19	80 0	635	49.5	— 2.1	37	83.0	3-4	24.0	10	21.3	1.57	— 1.48	0.34	11	20	..	2	1
Rosville.....	45 15	80 5	1038	49.5	—	6	82.0	3	23.0	9	22.1	0.94	—	0.25	7	24	..	..	..
Uplands.....	45 48	79 25	..	49.5	—	6	82.0	3	23.0	9	22.1	0.94	—	0.25	7	24	..	..	..
<i>Lake Huron Counties</i>																			
Brampton.....	43 2	81 55	600	53.1	— 1.9	28	81.0	2-3	23.4	12	30.4	3.22	+ 0.37	0.80	8	23	..	6	1
Clinton.....	43 32	81 37	517	51.7	— 1.6	10	81.0	4	23.0	11	22.3	1.08	— 2.35	0.24	7	24	..	3	1
Goderich.....	43 45	81 41	513	51.3	— 2.3	23	81.0	4	26.0	11	19.0	0.87	—	0.39	9	22	..	1	2
London.....	43 56	81 30	908	49.5	— 6.0	27	80.0	3	19.4	10	24.1	0.88	— 2.17	0.24	9	22	..	3	3
*North Bruce.....	44 23	81 25	..	49.3	—	42	..	3	28.0	26	..	4.89	+ 1.82	2.42	6	25	..	4	1
*Point Clark.....	44 5	81 44	505	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*Sarnia.....	42 59	82 24	545	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Southampton.....	44 30	81 21	656	49.2	— 2.3	36	82.0	3	25.2	11	19.3	0.82	— 1.72	0.26	10	21	..	2	1
<i>Lakes St. Clair &amp; Erie, Niagara Peninsula</i>																			
Chatham.....	42 23	82 12	535	56.4	— 0.4	26	84.0	2-4	28.0	10	21.7	3.16	— 0.26	0.82	7	24	..	..	..
Cottam.....	42 7	82 45	606	53.5	— 3.9	25	84.0	3	22.0	5	25.9	3.46	— 0.28	1.35	8	23	..	..	..
Dutton.....	41 50	82 41	54.4	..	..	1	82.0	3	22.0	10	23.0	..	..	..	..	..	..	..	..
Grimby.....	41 10	82 36	..	53.7	—	4	87.0	3-4	33.0	9-10	20.9	1.96	—	1.06	6	25	..	..	..
Pelee Island.....	43 50	82 35	545	58.8	+ 0.7	39	80.0	30	39.5	1	7.6	3.39	+ 0.63	1.60	5	26	..	..	..
Port Burwell.....	42 39	80 55	592	52.2	— 1.2	10	77.0	5	28.0	10 11	19.6	2.39	— 0.65	0.72	7	24	..	..	..
Port Dover.....	42 27	80 15	635	52.0	— 1.9	38	81.5	3	28.0	10 11	19.6	2.39	— 0.65	0.72	7	24	..	..	..
Port Stanley.....	42 40	81 13	592	52.4	— 0.6	37	74.2	5	25.5	10	18.9	2.29	— 1.02	0.52	12	19	..	4	2
St. Catharines.....	43 9	79 17	347	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stoney Creek.....	43 13	79 45	292	54.6	— 0.2	29	85.0	3-4	30.0	13	19.2	1.61	0.54	0.68	4	27	..	1	..
Wallaceburg.....	42 35	82 24	..	54.4	—	1	82.0	3	22.0	9	22.6	3.38	—	1.02	9	22	..	..	..
Welland.....	42 59	79 17	577	54.8	— 0.9	27	83.0	5	31.0	11	21.7	1.96	— 0.94	0.81	8	23	..	..	..
Windsor.....	42 20	83 4	625	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION								
				Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Harvest fall in month.	Days with 01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.
ONTARIO—Continued—																		
West-Central Counties																		
Alton.....	43 51 80	5	1250	54.8	— 0.8	33	85.0	3	28.0	9 24 3	1.98	— 0.04	0.74	7 24	..	4	..	
Brantford.....	43 10 80	21	750	51.2	— 0.8	16	83.0	3	24.0	10 25.7	1.05	— 1.69	0.33	9 22	..	..	..	
Elora.....	43 41 80	24	1274	52.8	— 1.0	16	83.0	2-3	24.0	10 26.6	1.24	— 1.83	0.50	8 23	..	1	..	
Guelph.....	43 33 80	16	1050	52.0	— 1.4	14	83.0	3	24.0	9 22.9	0.46	— 2.16	0.18	4 28	..	..	..	
Listowel.....	42 59 81	13	808	54.5	— 3.5	25	85.0	3	27.0	10 24.6	1.13	— 0.51	1.02	7 24	..	3	..	
Paris.....	43 12 80	25	840	55.6	+ 2.6	24	86.0	3	29.0	10-11 24.1	0.90	— 2.26	0.55	6 25	..	..	..	
Shelburne.....	43 23 81	0	1191	53.1	— 0.5	38	81.2	3	27.5	10 21.9	1.12	— 1.69	0.42	5 26	..	..	..	
Stratford.....	43 8 80	47	980	53.1	— 0.5	38	81.2	3	27.5	10 21.9	1.12	— 1.69	0.42	5 26	..	..	..	
Woodstock.....	43 8 80	47	980	53.1	— 0.5	38	81.2	3	27.5	10 21.9	1.12	— 1.69	0.42	5 26	..	..	..	
Lake Ontario Counties																		
Agincourt.....	43 47 79	16	590	53.1	— 0.9	19	84.9	2	27.3	10 22.0	1.40	— 2.16	0.72	8 23	..	1	2	
Aurora.....	43 57 79	24	886	51.7	— 0.5	5	83.3	3	25.0	7 21.8	1.56	— 0.94	0.44	4 27	..	..	..	
Hamilton.....	43 16 79	34	203	56.0	+ 0.7	38	83.0	3	31.0	10 18.6	2.77	— 0.01	0.96	5 26	..	..	..	
Oshawa.....	43 53 78	52	331	54.3	+ 0.7	72	86.6	2	30.2	10 19.9	1.04	— 1.81	0.56	8 23	..	1	..	
Toronto.....	43 40 79	24	350	54.3	+ 0.7	72	86.6	2	30.2	10 19.9	1.04	— 1.81	0.56	8 23	..	1	..	
Toronto Is. (Lakeside Home)	43 40 79	24	350	54.3	+ 0.7	72	86.6	2	30.2	10 19.9	1.04	— 1.81	0.56	8 23	..	1	..	
Uxbridge.....	44 5 79	8	886	51.9	— 0.9	83.0	81.0	31	31.0	10 17.5	1.03	— 0.45	0.77	6 25	..	..	..	
Wexford.....	43 44 79	17	553	50.5	— 2	81.0	81.0	2	26.0	10 17.2	1.17	— 0.77	0.77	6 25	..	..	..	
East-Central Counties																		
Bancroft.....	45 1 77	50	50.7	— 0.6	22	85.0	85.0	3	20.0	10 26.3	—	—	—	—	..	..	..	
Haliburton.....	45 1 58	28	1050	51.9	— 0.8	24	86.0	4	18.0	11 23.9	0.14	— 1.23	0.54	4 27	..	2	..	
Kiamouti.....	44 45 78	38	920	50.2	— 2.8	14	83.0	4	21.0	10 23.8	0.69	— 2.37	0.21	5 26	..	..	..	
Lakeside.....	44 25 78	15	850	52.8	— 1.0	33	86.1	4	25.5	11 24.2	0.80	— 1.76	0.29	6 25	..	1	..	
Lindsay.....	44 20 78	45	872	53.8	— 1	86.0	86.0	3-5	27.0	11 23.0	2.07	— 1.12	0.59	5 26	..	..	..	
Madoc.....	44 30 77	29	575	53.8	— 1	86.0	86.0	3-5	27.0	11 23.0	2.07	— 1.12	0.59	5 26	..	..	..	
Norwood.....	44 17 78	19	722	53.2	— 2.1	44	85.0	3	27.0	11 23.9	0.83	— 1.83	0.29	4 27	..	1	..	
Peterboro.....	44 17 78	19	722	53.2	— 2.1	44	85.0	3	27.0	11 23.9	0.83	— 1.83	0.29	4 27	..	1	..	
Ureia.....	44 54 78	18	620	53.2	— 2.1	44	85.0	3	27.0	11 23.9	0.83	— 1.83	0.29	4 27	..	1	..	
QUEBEC—																		
Middle St. Lawrence																		
Brome.....	45 10 72	36	678	49.7	— 3.2	32	83.0	4-6	22.0	15 29.3	3.57	+ 0.29	1.05	10 21	..	3	..	
Cap Rouge.....	46 46 71	18	132	48.9	— 3	85.0	85.0	7	25.2	15 18.4	3.27	— 1.05	1.05	10 21	..	3	..	
Cedar Rapids.....	44 25 78	15	850	52.1	— 1	85.0	85.0	3-7	21.0	20 20.6	2.14	— 0.95	1.11	11 23	..	..	..	
D'Isern.....	45 55 71	21	896	53.9	— 1.1	38	84.7	4	31.8	10 18.0	3.84	+ 1.05	1.11	11 20	..	2	1	
Montreal.....	45 30 73	35	187	50.8	— 0.7	38	84.7	6	28.5	15 19.8	2.69	— 0.46	0.80	11 20	..	4	..	
Quebec.....	46 48 71	13	296	46.9	— 10	85.0	85.0	40	19.0	15 24.2	2.22	— 0.72	1.12	9 22	..	2	..	
Ste. Anne de Bellevue.....	45 27 73	59	46	46.9	— 10	85.0	85.0	40	19.0	15 24.2	2.22	— 0.72	1.12	9 22	..	2	..	
Shawinigan Falls.....	46 34 72	43	620	47.4	— 3	87.8	87.8	6	22.0	7 19.1	2.69	— 0.84	0.84	9 22	..	..	..	
Sherbrooke.....	45 32 72	5	620	47.4	— 3	87.8	87.8	6	22.0	7 19.1	2.69	— 0.84	0.84	9 22	..	..	..	
Lower St. Lawrence & Gulf																		
*Anticosti, E. Pt.....	49 6 61	42	30	40.3	— 4.1	30	54.0	17	32.0	1	1.35	— 0.78	0.78	2 29	..	6	2	
*Anticosti, S.W. Pt.....	49 6 61	42	30	40.3	— 4.1	30	54.0	17	32.0	1	1.35	— 0.78	0.78	2 29	..	6	2	
*Anticosti, W. Pt.....	49 6 61	42	30	40.3	— 4.1	30	54.0	17	32.0	1	1.35	— 0.78	0.78	2 29	..	6	2	
*Bequet.....	49 52 64	32	30	40.6	— 1.0	31	57.0	18	30.0	1	2.32	— 0.48	0.90	10 21	..	3	..	
*Cape Chatte.....	45 30 73	35	187	45.0	+ 2.7	30	70.0	4	30.0	15	1.90	— 0.60	0.80	5 26	..	..	..	
*Cape Magdalen.....	49 16 65	20	93	41.0	— 3.6	31	50.0	21-22	32.0	15	0.98	— 1.09	0.36	4 27	..	5	..	
Father Point.....	49 16 65	20	93	41.8	— 2.1	31	64.0	28	29.0	15	3.62	+ 2.07	0.60	12 19	..	5	..	
Ste Anne de la Poutiere.....	48 31 68	19	20	43.4	— 0.9	35	68.1	4	24.0	1 13.2	2.85	— 0.11	0.72	10 21	..	1	..	
Ste Anne de la Poutiere.....	47 22 70	2	65	47.4	— 3	87.8	87.8	6	22.0	7 19.1	2.69	— 0.84	0.84	9 22	..	..	..	
Lake St. John																		
Chicoutimi.....	48 25 71	5	150	47.4	— 3	87.0	87.0	5	26.1	10	1.32	— 1.52	0.50	12 19	..	1	2	
Chicoutimi (2).....	47 39 72	15	1333	48.1	— 3	82.2	82.2	2-5	3.0	14 27.4	1.87	— 0.60	1.12	12 19	..	1	..	
Lake Edward.....	47 27 72	48	820	46.1	— 2	84.0	84.0	6	20.0	15 23.4	2.28	— 0.49	1.01	10 21	..	1	3	
La Tuque.....	48 54 72	15	360	46.1	— 2	84.0	84.0	6	20.0	15 23.4	2.28	— 0.49	1.01	10 21	..	1	3	
Mistissini.....	48 31 72	13	352	46.1	— 2	84.0	84.0	6	20.0	15 23.4	2.28	— 0.49	1.01	10 21	..	1	3	
*Roberval.....	48 31 72	13	352	46.1	— 2	84.0	84.0	6	20.0	15 23.4	2.28	— 0.49	1.01	10 21	..	1	3	
The Northwestern Districts																		
Abitibi.....	48 33 79	22	45.6	— 1.0	17	75.0	75.0	31	25.0	9-25 19.3	1.53	— 0.60	0.60	8 23	..	..	..	
Manouan Crossing.....	47 54 73	50	43.6	— 2	83.0	83.0	83.0	4	13.5	15 26.0	1.82	— 0.35	0.35	7 24	..	2	..	
Weymontachiquing (Dam A).....	48 12 75	43	43.6	— 2	83.0	83.0	83.0	4	13.5	15 26.0	1.82	— 0.35	0.35	7 24	..	2	..	
White Shore Lake.....	48 12 75	43	43.6	— 2	83.0	83.0	83.0	4	13.5	15 26.0	1.82	— 0.35	0.35	7 24	..	2	..	
The North Shore																		
Clarke City.....	50 10 66	25	50	47.5	— 2.6	38	88.0	6	28.5	2-13 19.3	2.72	— 0.10	0.62	12 19	..	..	..	
NEW BRUNSWICK—																		
Chatham.....	43 3 65	29	21	47.5	— 2.6	38	88.0	6	28.5	2-13 19.3	2.72	— 0.10	0.62	12 19	..	..	..	
Dalhousie.....	45 4 66	28	30	44.3	— 0.7	35	55.0	3-31	32.0	2	4.87	+ 0.79	1.77	6 25	..	9	..	
Fredericton.....	45 57 66	36	164	47.5	— 3.1	42	83.3	6	27.0	17 21.1	4.04	+ 0.87	1.20	13 18	..	1	..	
Moncton.....	46 9 64	45	50	46.3	— 3.2	16	79.0	6	26.0	15 19.8	3.00	+ 0.62	1.15	9 22	..	..	..	
*Point Lepreau.....	45 4 66	28	30	44.3	— 0.7	35	55.0	3-31	32.0	2	4.87	+ 0.79	1.77	6 25	..	9	..	
St. John.....	47 16 66	4	70	45.8	— 2.7	40	65.5	3	31.3	2 12.2	3.64	— 0.27	0.75	13 18	..	1	..	
St. Stephen.....	45 11 67	16	35	47.7	— 2.8	16	78.0	6	22.0	16 23.0	2.74	+ 0.47	1.25	8 23	..	1	..	
Sussex.....	45 38 65	38	96	46.3	— 3.2	16	70.0	6	22.0	15 19.8	4.54	+ 1.91	1.85	7 24	..	..	..	
Williamsburg.....	44 9	—	1	83.0	83.0	83.0	83.0	7	25.0	17 21.8	3.44	— 1.75	1.75	7 24	..	..	..	



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION				Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average					
NOVA SCOTIA—																		
Advocate.....	45 38	61 59	50	45.4	—	2	75.0	7-19	21.0	14	21.5	—	—	—	—	—	—	—
Antigonish.....	44 39	63 36	88	47.0	-2.3	38	65.8	19	28.9	9	17.9	5.20	+1.53	1.03	18	13	—	1
Halifax.....	45 3	—	40	44.9	—	2	67.0	6	23.0	16	19.7	2.77	—	1.03	16	21	—	—
Kentville (2).....	—	—	—	46.0	—	1	70.0	6	27.0	16	16.9	3.17	—	0.84	18	13	—	—
Liverpool.....	—	—	—	44.5	—	1	67.0	6-7	16.0	9	25.9	—	—	—	—	—	—	2
Merigonish.....	—	—	—	48.1	—	2	77.0	6	23.0	16	23.1	5.05	—	2.60	4	27	—	—
New Germany.....	45 23	64 19	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parrsboro'.....	45 39	61 22	45	43.4	-4.3	22	70.0	18	20.0	2-4	23.6	3.22	-0.27	1.98	9	22	1	—
*Sable Island, E. Pt.	43 58	59 46	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sable Island (Main Station)	43 57	60 6	25	43.1	-1.2	30	38.0	29	33.0	2-5	9.8	4.01	+0.32	0.71	13	18	—	13
Sydney.....	46 10	60 10	35	44.5	-1.6	40	69.5	7	27.0	16	16.2	2.16	-1.07	0.56	13	18	—	—
Truro.....	45 22	63 18	77	46.6	-2.6	38	71.3	29	23.0	16	20.6	3.26	+0.23	0.92	15	16	—	—
*Whitehead.....	45 15	61 8	20	40.9	-1.0	29	56.0	10	35.0	16	—	3.07	+0.19	0.68	6	25	—	9
Windsor.....	44 59	64 6	90	46.8	-3.4	11	72.0	6	28.0	16-18	17.6	2.98	—	0.82	11	20	1	—
Wolfville.....	45 7	64 20	—	46.1	-4.8	14	67.8	6	29.2	17	16.2	3.00	+0.25	0.78	11	20	—	—
Yarmouth.....	43 50	66 2	65	46.1	-2.2	32	63.7	31	30.1	18	13.3	7.22	+3.56	2.32	13	18	—	2
P. E. ISLAND—																		
Charlottetown.....	46 14	63 10	38	45.4	-2.9	37	66.0	29	30.0	9-13	14.6	1.87	-0.89	0.42	18	13	1	—
Charlottetown (Exp. Farm)	46 14	63 7	75	45.1	—	3	68.8	6	28.5	9	16.0	2.03	—	0.33	20	11	—	—
Hamilton.....	46 25	63 48	—	44.9	-2.1	15	63.0	6-19	27.0	13	16.2	1.87	—	0.52	9	22	—	—
NEWFOUNDLAND—																		
*Amour Point.....	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burin.....	47 0	53 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Cape Norman.....	51 38	55 52	—	32.6	—	—	40.0	30	24.0	2	—	0.18	—	0.13	2	29	—	1
Fogo.....	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
*Point Riche.....	50 42	57 25	35	39.7	—	29	55.0	8	31.0	9	10	0.19	-2.39	0.10	3	28	—	2
Port aux Basques.....	47 35	59 10	27	39.8	—	4	57.5	18	31.5	9-14	10.3	3.58	—	1.18	16	15	—	6
St. George's.....	—	—	—	43.6	—	—	23.72.8	29	29.2	10	16.3	0.94	—	0.37	12	19	—	6
St. John's.....	47 34	52 42	125	43.1	+0.4	40	73.0	7	28.0	5	16.5	4.67	+1.48	1.14	14	17	—	5
LABRADOR—																		
*North West River.....	—	—	—	35.1	—	—	52.0	23	19.0	10-12	—	—	—	—	—	—	—	—
BERMUDA—																		
Prospect.....	32 17	64 46	151	65.4	-2.4	22	77.2	25-26	49.4	12	12.3	1.32	-3.07	0.72	10	21	1	—

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING MAY, 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount inches.	No. of Days 01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake .....	0.84	6	25	0.24	9					
Annis (Canoe Point) .....	1.55	14	17	0.43	10					
Beaver Lake .....	0.74	3	28	0.40	10					
Coquitlam .....	4.73	9	22	1.22	14					
Cariboo Road No 141 .....										
Donnan's Island .....	0.90	7	24	0.22	10					
Ferguson .....	2.67	12	18	0.38	11	3.0	1	3.0	2	
Goldstream Lake .....	1.90	11	20	0.43	10					
Hydraulic .....										
Ilhorn Island .....	1.22	7	24	0.32	14					
Invermere .....	0.67	6	25	0.25	27					
Jordan River .....	3.06	14	17	0.52	14					
Jordan River (Bear Creek) .....	3.57	10	21	0.61	15					
Little Quasnum .....	1.76	10	21	0.45	13					
Lambly .....	1.63	12	19	0.44	10					
Monte Creek .....										
Nans Harbour .....	2.16	16	15	0.28	12					
Rock Creek .....	1.64	9	22	0.39	8					
Shawiniga Lake .....										
Wychiffe .....										
ALBERTA—										
Bardo .....	0.63	4	26	0.21	6	1.5	1	1.5	4	
Bismark .....										
Brueserheim .....										
Bittern Lake .....	0.10	4	26	0.03	30	0.2	1	0.2	2	
Brooks .....	1.31	14	16	0.75	13	1.3	1	1.3	6	
Beaver Mines .....	1.80	5	25	0.80	17					
Coleman .....	1.58	8	23	0.51	18					
Cowley .....	1.49	13	17	0.36	13	3.0	1	3.0	3	
Caldwell .....	0.05	2	25	0.04	9	10.0	3	5.0	4	
Clareholm .....	0.94	5	23	0.40	9	4.0	1	4.0	3	
Clarinda .....	0.70	4	26	0.26	15	3.0	1	3.0	3	
Dorence (Bashaw) .....	1.40	4	27	1.00	30					
Dunstable (Five Lakes) .....	0.69	10	21	0.37	30					
Grassy Lake .....	0.42	3	28	0.30	12					
Jumping Pound .....	3.11	7	23	1.06	12	2.0	1	2.0	4	
Loch Sloy .....										
Lyndon .....	1.26	9	22	0.60	13					
Lineham .....	2.10	2	28	1.50	14	4.0	1	4.0	9	
La Pearl .....	0.79	4	27	0.57	24					
Lethbridge .....	1.33	12	18	0.55	12	1.9	1	1.9	3	
Macleod .....	1.39	6	24	0.46	13	4.0	1	4.0	3	
Maycroft .....	1.90	11	18	0.47	12	3.3	2	2.1	3	
Mountain View .....	1.80	3	25	1.14	16	4.0	1	4.0	3	
Mannville (Royerott Ranch) .....	0.95	3	28	0.39	14					
Nateby .....	0.34	4	26	0.25	13	0.8	1	0.8	1	
Nanton .....	1.80	9	22	0.87	12					
Okotoks .....										
Pokisko .....	1.38	8	21	0.45	28	5.3	2	2.8	7	
Ponoka .....	0.70	2	23	0.50	13	6.5	6	2.0	8	
Sun .....										
Seven Persons .....	1.08	3	28	0.75	13					
Tilley .....										
Writing-on-Stone (Coumts) .....										
Waterton Mills .....	2.31	4	26	0.91	9	7.5	1	7.5	3	
SASKATCHEWAN—										
Aberfeldy .....										
Gull Lake .....	0.57	3	28	0.40	15					
Gull Lake (Eks. Swift Cur.) .....	0.43	3	28	0.33	14					
Last Mountain .....										
Maple Creek .....										
Meadow Lake .....										
Nashlyn (Kelvinhurst) .....										
Willow Creek (Buttle Cr.) .....										
Wopashoe .....										
MANITOBA—										
Cartwright .....	1.19	12	19	0.34	15	*	1	*	2	
Deloraine .....										
Norquay (Swan Lake) .....	0.61	6	24	0.22	12	*	1	*	17	
Rapid City .....	1.31	8	22	0.44	25	0.2	1	0.2	3	
Rose Bank .....										
ONTARIO—										
Brantford(Bow Park Farm) .....	2.12	10	21	0.96	21					
Deer Park .....	0.91	7	24	0.46	15					
Dutton .....	1.37	6	25	0.52	16					
Ennisdale .....	2.02	11	20	0.41	22					
Fort Frances .....	4.63	7	24	0.98	29					
Georgetown .....	1.33	7	21	0.55	16					
Grantham .....	1.73	8	23	0.47	22					
Grand Valley .....	0.65	4	27	0.47	16					
Hillier .....	2.60	3	28	1.80	27					
MacCoe .....	3.45	5	26	2.45	28					
Princeton .....										
Renfrew .....										
Sydenham .....	4.10	4	27	3.05	27					
Strathroy .....	2.39	6	25	0.73	16					
Watford .....	2.98	8	23	0.80	16					
Westport .....	4.14	5	25	1.25	28	*	1	*	9	
Westminster .....	0.99	3	28	0.69	16					
Wooler .....										
Wesley .....										
Wattenwyl .....										
Warton .....	0.74	4	27	0.29	22					

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING MAY, 1913.

STATIONS	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
QUEBEC—										
Bark Lake (Riviere Desert)	1 86	7	24	0 70	22					
Kipawa Dam.....	1 78	5	26	0 75	27					
Lucerne.....	2 14	6	25	1 10	28					
Perkins Mills.....	1 42	5	26	0 43	6					
Quinze Dam.....										
Timiskaming.....										
NEW BRUNSWICK—										
Point Escuminac.....	2 49	6	25	0 91	30					
NOVA SCOTIA—										
Big Mashamush Lake (Ma- hons).....										
Kentville.....	4 75	11	19	1 80	30	1 0	1	1 0	1	
Milton.....	5 71	5	26	2 66	30					
Mashamush River (Mahons)										
Nappan.....	2 38	10	21	1 05	29					
South Alton.....										
White Rock.....	3 15	7	23	1 00	21-30	*	1	*	1	

## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF MAY, 1913.

a Barometer not reduced to sea level

STATION	Latitude N	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND				
				Mean reduced.	Highest.	Lowest.	Range.				N	N.E.	E.	S.E.	S	S.W.	W	N.W.	C.	Total number of observations	Mean miles per hour.	Maximum velocity.	Date and direction from.		
BRITISH COLUMBIA—																									
Atlin	50	35	133	38	2240	29.99	30.63	29.49	1.14	—	6	4	1	1	2	4	37	3	5	5	4	62	8.1	.....	
Barkerville	53	2	121	35	4180	29.93	30.34	29.68	0.66	—	0	0	0	0	3	17	2	0	40	62	5.8	.....	.....		
Kamloops	53	42	120	29	1245	29.92	30.42	29.63	0.79	53	7	10	5	1	16	1	14	3	13	2	7	62	.....	.....	
a Nanaimo	49	10	123	37	125	29.96	30.36	29.44	0.92	73	8	20	0	3	10	7	7	0	0	35	62	.....	.....		
Prince Rupert	54	18	130	18	170	29.96	30.36	29.44	0.92	73	8	20	0	3	10	7	7	0	0	35	62	.....	.....		
Triangle Island	50	52	129	5	680	29.96	30.36	29.44	0.92	73	8	20	0	3	10	7	7	0	0	35	62	.....	.....		
Tranquille	50	11	120	29	—	29.96	30.36	29.44	0.92	73	8	20	0	3	10	7	7	0	0	35	62	.....	.....		
Vancouver	49	17	123	5	136	30.03	30.36	29.78	0.56	76	5	11	1	2	26	6	5	11	3	4	4	62	.....	.....	
Victoria	48	24	123	19	85	30.05	30.36	29.78	0.58	74	6	11	7	3	1	3	7	29	6	2	4	62	8.3	24 3W19W	
YUKON—																									
Dawson	64	4	139	20	1200	29.96	30.36	29.44	0.92	73	8	20	0	3	10	7	7	0	0	35	62	.....	.....		
ALBERTA—																									
Banff	51	10	115	34	4542	29.97	30.43	29.66	0.77	61	6	6	2	9	3	1	0	22	5	0	20	62	.....	.....	
Calgary	51	2	114	2	3389	29.92	30.53	29.45	1.08	74	5	6	2	9	3	1	0	22	5	0	20	62	5.5	19 2.8SW	
Edmonton	53	33	113	30	2138	29.94	30.32	29.57	0.80	65	5	6	3	4	8	4	13	4	6	2	16	13	62	7.0	21 30NW
Medicine Hat	50	1	110	37	2161	29.91	30.33	29.54	0.76	67	6	4	0	5	6	0	3	25	10	5	8	62	.....	.....	
SASKATCHEWAN—																									
Battleford	52	41	108	20	1620	29.97	30.47	29.53	0.54	63	3	3	1	2	2	15	1	5	5	16	15	62	7.4	9SE 30 28NW	
Moose Jaw	50	21	105	35	1759	29.95	30.47	29.50	0.99	61	5	8	5	10	16	8	0	12	8	10	24	93	.....	.....	
Prince Albert	53	10	106	0	1432	29.95	30.53	29.45	1.08	74	5	7	11	10	6	5	7	1	1	16	15	62	4.2	.....	
Qu'Appelle	50	30	103	47	2115	29.96	30.33	29.52	1.01	67	6	6	5	3	7	10	8	8	6	15	0	62	9.8	25 10SE	
Swift Current	50	20	107	45	2439	29.93	30.38	29.50	0.88	72	5	7	0	5	6	12	3	7	12	10	7	62	.....	.....	
MANITOBA—																									
a Aweme (St. Alban's)	49	42	99	33	1180	28.79	29.34	28.48	0.86	66	6	6	2	9	3	1	0	22	5	0	20	62	.....	.....	
Minnedosa	50	15	99	50	1699	28.99	29.34	28.48	0.86	66	6	6	2	9	3	1	0	22	5	0	20	62	.....	.....	
Le Pas	53	19	101	15	1890	28.99	29.34	28.48	0.86	66	6	6	2	9	3	1	0	22	5	0	20	62	8.3	.....	
Winnipeg	49	53	57	7	760	30.02	30.65	29.58	1.07	63	6	4	19	13	7	13	9	4	4	23	1	93	10.9	28 128SW	
ONTARIO—																									
Cochrane	49	2	81	0	946	30.06	30.47	29.53	0.94	—	6	11	8	6	5	5	9	3	5	12	9	62	3	26 1W	
Guelph	43	33	50	16	050	30.04	30.43	29.68	0.75	67	6	11	16	2	3	4	7	8	7	6	9	62	10.5	.....	
Halifax	47	29	79	39	687	30.03	30.38	29.72	1.06	66	6	9	8	15	3	4	7	4	9	9	7	1	62	8.4	24 18SW
Kingston	44	13	26	29	285	30.04	30.43	29.68	0.66	66	4	6	6	33	3	15	0	15	0	21	0	93	.....	.....	
a Lindsay	42	59	81	13	908	30.04	30.43	29.68	0.66	66	4	6	6	33	3	15	0	15	0	21	0	93	.....	.....	
Ottawa	44	20	78	45	872	29.12	29.43	28.82	0.63	—	5	9	14	12	6	11	3	12	9	22	4	93	.....	.....	
Port Arthur	45	26	75	42	244	29.99	30.45	29.68	0.67	84	5	6	12	4	13	3	11	12	4	0	62	.....	.....		
Perry Sound	45	19	50	0	635	30.04	30.43	29.68	0.74	77	5	8	5	5	1	6	6	14	13	7	5	62	7.1	22 21SE	
Port Arthur	48	27	59	12	644	30.04	30.43	29.68	0.74	77	5	8	5	5	1	6	6	14	13	7	5	62	7.1	22 21SE	
Port Stanley	42	40	81	13	592	30.05	30.45	29.69	0.77	76	5	6	0	5	15	8	0	4	9	17	4	62	8.2	22 8.9W	
Southampton	44	30	81	21	636	30.05	30.45	29.69	0.77	79	6	6	3	6	3	7	4	15	8	12	4	62	5.1	14.9W	
Stoney Creek	46	4	58	6	557	30.03	30.35	29.64	0.71	79	4	5	0	2	8	3	1	0	15	6	30	62	5.1	14.9W	
Toronto	43	40	79	24	350	30.04	30.43	29.68	0.67	59	4	4	12	4	14	1	2	0	16	12	1	62	11.8	33 15SE	
White River	48	35	85	16	1252	30.04	30.43	29.68	0.63	68	6	10	11	9	6	8	2	15	10	32	0	93	9.7	27 18NW	
Woodstock	43	8	50	47	980	30.04	30.43	29.68	0.63	68	6	10	11	9	6	8	2	15	10	32	0	93	9.7	27 18NW	
QUEBEC—																									
Anticosti S.W. Pt	48	31	08	19	20	29.93	30.52	29.07	1.38	87	5	5	18	9	2	32	5	0	5	16	6	93	13.6	38 11NE	
Father Point	48	31	08	19	20	29.93	30.52	29.07	1.38	87	5	5	18	9	2	32	5	0	5	16	6	93	11.0	33 25W	
Montreal	45	30	73	35	187	29.95	30.37	29.67	0.80	58	5	8	6	12	6	12	16	10	5	25	1	93	12.2	26 2E	
Quebec	46	48	71	13	294	29.96	30.34	29.40	0.94	67	6	12	3	33	8	2	4	12	11	20	0	93	12.2	37 6SW	
Sherbrooke	45	32	72	5	620	29.96	30.34	29.40	0.94	67	6	12	3	33	8	2	4	12	11	20	0	93	12.2	37 6SW	
NEW BRUNSWICK—																									
Chatham	47	3	65	29	21	29.96	30.53	28.92	1.61	79	6	8	7	5	15	4	1	10	7	12	1	62	.....	.....	
Fredericton	45	57	56	36	164	29.97	30.52	28.98	1.54	75	6	10	8	7	11	15	14	5	8	23	2	93	.....	.....	
St. John	45	17	66	4	70	29.96	30.48	28.96	1.52	75	6	10	8	12	8	6	18	15	10	13	3	93	10.9	40 50N	
NOVA SCOTIA—																									
Halifax	44	39	63	36	88	29.94	30.48	28.95	1.66	81	6	13	3	21	2	6	11	9	3	7	0	62	11.5	40 30SW	
Sable Island (MStation)	43	57	60	6	25	29.97	30.49	29.29	2.10	—	7	15	0	15	3	17	3	13	8	24	0	93	15.3	50 30 SW	
Sydney	46	10	60	10	35	29.94	30.55	29.36	1.47	74	7	16	13	19	10	3	9	14	6	17	2	93	12.3	34 17NE	
Yarmouth	43	50	66	2	65	29.97	30.51	28.97	1.54	84	7	14	13	8	4	4	12	2	9	9	1	62	11.2	.....	
P. E. ISLAND																									
Charlottetown	46	14	63	10	38	29.95	30.50	28.79	1.71	79	7	17	10	12	3	5	10	7	2	5	8	62	7.2	30 30SE	
NEWFOUNDLAND																									
Burin	49	0	55	10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pogo	49	43	54	17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Port aux Basques	47	35	59	10	27	29.92	30.52	29.02	1.50	—	8	19	6	3	20	3	2	3	10	12	2	3	62	.....	.....
St. George's	48	27	58	31	21	29.97	30.55	29.36	1.19	83	7	11	2	7	10	1	8	9	5	20	0	62	.....	.....	
St. John's	47	34	52	42	125	29.83	30.51	29.16	1.35	72	7	12	5	6	5	6	4	16	5	12	3	93	.....	.....	
Prospect	32	17	62	46	151	30.12	30.35	29.81	0.54	83	5	2	11	2	1	5	20	21	6	27	0	93	.....	.....	

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF MAY, 1913

STATION	DIRECTION OF WIND FROM								C.	Total hours of Observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	4	1	6	2	1	2	7	8	0	31
Didsbury.....	1	4	5	3	0	9	3	4	0	29
Endiang.....										
Halkirk (Emsburg).....	7	2	6	19	5	5	4	14	0	62
Hillsdown.....	0	1	0	25	8	5	0	17	6	62
Loveland.....	1	8	2	18	4	8	5	16	0	62
Macleod.....	3	0	8	0	0	0	34	0	17	62
Pakan (Victoria).....										
Ranfurly (Waitefield).....	5	5	22	17	6	7	12	12	7	93
SASKATCHEWAN—										
Chaplin.....	0	3	4	11	0	0	5	8	0	31
Crescent Lake.....										
Estevan.....	0	4	11	2	1	4	2	3	4	31
Fort Qu'Appelle.....	0	1	8	13	0	1	14	13	2	62
Grenfell (Brownhill).....	3	9	2	16	3	12	4	13	0	62
Indian Head.....	5	9	8	13	13	9	6	25	5	93
Larchmount (Glenbryan).....	0	5	14	7	1	10	21	4	0	62
Moosomin.....										
Muenster (St. Peter's Monastery).....	6	7	9	6	11	1	3	17	0	60
Onion Lake.....										
Pense (Gatesgarth).....	0	1	1	13	0	0	3	9	4	31
Waseca.....	0	4	0	5	0	6	13	3	0	31
MANITOBA—										
Berens River.....										
Brandon.....	0	11	5	19	0	11	8	15	16	85
Hillview.....	2	7	14	20	4	11	6	29	0	93
Moose Horn Bay (Aitkensville).....	11	7	6	5	6	1	1	2	9	48
Morden.....	7	7	2	9	4	10	8	8	7	62
Oak Bank.....	18	4	5	6	3	6	11	6	3	62
Stony Mountain.....	6	10	4	10	8	4	5	13	0	60
ONTARIO—										
Agincourt.....	1	4	11	4	7	16	11	39	0	93
Alton.....										
Beatrice.....	17	0	1	3	14	6	8	13	31	93
Birnam.....	17	3	11	5	4	3	2	10	7	62
Clinton.....	3	2	4	9	6	7	5	26	0	62
Cottam.....	12	1	11	9	13	5	11	0	0	62
Gravenhurst.....	17	1	9	4	8	9	15	10	20	93
North Bruce.....	10	2	15	0	21	5	25	15	0	93
Orillia.....	1	1	0	0	2	2	3	1	0	10
Owen Sound.....										
Point Clark.....	21	1	2	6	19	4	7	2	0	62
Port Dover.....	3	5	3	0	6	1	5	8	0	31
Stoney Creek.....	5	12	14	7	1	14	35	5	0	93
Uplands.....										
Wexford.....	1	0	4	1	0	4	2	13	6	31
QUEBEC—										
Abitibi.....	27	1	11	8	15	1	26	4	0	93
Anticosti, W. Pt.....	15	15	17	3	26	2	0	15	0	93
Anticosti, Heath Point.....	15	19	11	3	16	9	9	2	9	93
Bicquet.....	11	42	0	0	10	3	3	11	13	93
Brome.....	26	0	1	0	25	6	32	0	3	93
Cape Chatte.....	2	9	34	0	0	3	23	5	17	93
Cape Magdalen.....	5	1	4	8	13	3	5	36	18	93
Cap Rouge.....	20	8	0	0	0	1	0	2	0	31
Chicoutimi.....	0	29	0	5	0	12	0	28	19	93
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	0	16	0	0	0	12	2	0	20
Moncton.....	1	4	6	1	0	0	1	18	0	31
Pt. Lepreaux.....	12	7	15	8	7	16	7	9	0	81
Sussex.....	2	11	0	0	0	2	1	3	12	31
NOVA SCOTIA—										
Kentville.....	4	2	4	3	3	2	7	6	0	31
Parrsboro.....										
Port Hastings.....	0	4	0	9	1	14	0	3	0	31
Sable Island, E. Pt.....										
Truro.....	28	7	4	8	10	10	13	12	1	93
Whitehead.....	13	8	8	10	20	16	4	14	0	93

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
MAY 1918.

STATION.	HOURS ENDING															
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.
Victoria .....			.03	.17	.32	.40	.49	.47	.50	.58	.53	.53	.52	.42	.34	.07
Salmon Arm .....			.18	.43	.52	.54	.66	.66	.61	.57	.56	.57	.53	.51	.44	.28
Vancouver .....		.03	.24	.35	.39	.43	.47	.49	.52	.52	.50	.45	.41	.39	.32	.22
Agassiz .....				.15	.26	.27	.36	.37	.40	.41	.40	.36	.33	.32	.25	.04
Traquille .....																
Summerland .....		.15	.50	.53	.48	.59	.52	.59	.49	.53	.49	.42	.51	.47	.47	.19
Kamloops .....		.01	.05	.18	.43	.60	.75	.60	.72	.66	.67	.62	.57	.42	.15	.03
Harper's Ranch .....		.03	.24	.37	.44	.51	.56	.61	.54	.64	.56	.47	.45	.44	.15	
Edmonton .....		.06	.27	.66	.54	.61	.66	.64	.70	.59	.68	.61	.68	.60	.59	.44
Lethbridge .....			.25	.46	.46	.57	.66	.71	.67	.63	.59	.59	.59	.54	.43	.27
Lacombe .....		.06	.48	.60	.63	.64	.68	.74	.74	.75	.71	.67	.68	.59	.55	.44
Medicine Hat .....		T	.25	.48	.57	.62	.67	.68	.67	.65	.63	.62	.52	.62	.54	.24
Fort Dunvegan .....																
Fort Vermilion .....																
Battleford .....			.12	.42	.55	.69	.73	.77	.84	.88	.88	.86	.73	.63	.48	.18
Indian Head .....			.11	.27	.43	.43	.47	.51	.51	.48	.51	.50	.48	.39	.37	.19
Moos Jaw .....																
Scott .....	.03	.35	.48	.54	.57	.56	.55	.58	.67	.67	.60	.57	.57	.57	.47	.22
Rothern .....		.04	.31	.50	.51	.52	.49	.47	.50	.56	.54	.58	.57	.65	.58	.47
Brandon .....				.29	.48	.52	.63	.61	.64	.61	.60	.65	.69	.49	.21	.02
Winnipeg .....			.12	.37	.46	.43	.53	.65	.58	.64	.63	.64	.54	.57	.68	.24
Haileybury .....		.01	.15	.31	.43	.41	.45	.55	.56	.56	.57	.55	.45	.53	.43	.35
Woodstock .....			.16	.46	.60	.65	.67	.71	.68	.66	.68	.67	.62	.60	.54	.15
Lindsay .....				.27	.49	.58	.68	.67	.70	.67	.66	.64	.57	.57	.43	
*Barrie .....			.10	.26	.36	.48	.57	.64	.65	.65	.61	.56	.56	.51	.42	.03
Toronto .....			.19	.59	.61	.65	.70	.74	.72	.69	.70	.73	.66	.69	.58	.34
Kingston .....																
Ottawa .....			.29	.52	.66	.60	.65	.63	.63	.68	.65	.61	.64	.63	.56	.28
Montreal .....			.23	.49	.60	.58	.62	.58	.51	.56	.59	.58	.56	.55	.41	.09
Cap Rouge .....			.13	.39	.62	.55	.53	.61	.65	.60	.63	.59	.53	.48	.41	.18
Quebec .....			.07	.29	.48	.54	.53	.64	.61	.60	.53	.52	.50	.45	.37	.13
Sts Anne de la Pocatiere .....		.18	.41	.39	.41	.48	.54	.53	.57	.53	.55	.49	.43	.34	.23	.01
Sherbrooke .....																
Fredericton .....			.21	.51	.50	.48	.46	.54	.53	.44	.38	.40	.44	.41	.36	.18
Charlottetown .....			.24	.31	.40	.45	.47	.42	.38	.38	.36	.42	.42	.43	.40	.15
Nappan .....			.09	.36	.45	.62	.45	.49	.46	.41	.48	.44	.42	.37	.34	.24
Wolfville .....		T	.29	.47	.50	.47	.49	.49	.55	.49	.47	.50	.44	.45	.40	.25
Kentville .....			.10	.37	.46	.44	.50	.54	.55	.51	.48	.47	.46	.38	.29	.20

\* 25 days only

## SUMMARY OF SUNSHINE RECORDS

	Victoria	Salmon Arm.	Vancouver.	Astoria.	Tanquille.	Sumnerland.	Kamloops.	Harper's Ranch.	Edmonton.	Leithbridge.	Lacombe.	Medicine Hat.	Fort Duvernay.	Fort Vermilion.	Indian Head.	Moose Jaw.	Scott.	Roostera.	Stratford.	Winnipeg.	Hayesbury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kitchison.	(Mississ.)	Montreal.	Cap Rouge.	Quebec.	Ste Anne de la Pointe.	Sherbrooke.	Fredericton.	Charlottetown.	Napan.	Wolville.	Kentville.
Registered duration in hours . . . . .	166	220	178	121	215	199	186	235	233	278	241	272	175	217	228	200	213	197	213	215	214	207	245	215	207	194	188	181	164	171	194	178					
Percentage of possible duration . . . . .	55	46	37	25	45	41	39	52	49	56	50	55	36	51	46	42	45	42	51	47	47	58	53	51	44	42	41	39	35	37	42	35					
Difference from average . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maximum percentage in one day . . . . .	83	88	83	80	90	87	78	90	90	92	87	86	85	95	90	75	85	92	86	79	84	90	91	97	85	83	91	93	97	91	90	90					
Date of maximum . . . . .	6	31	31	6	22	30	30	5	30	21	5	21	30	31	30	31	1	29	10	26	20	15	17	15	15	17	15	15	1	13	4	4					
Number of days completely clouded . . . . .	4	4	4	15	5	5	3	2	3	4	2	0	5	1	2	1	1	3	1	1	4	1	4	5	3	4	6	8	10	5	8	5					

\*First 6 Days Estimated



*Thunder recorded:*

1. Kakabeka Falls, Schreiber, Markdale.
2. Brome, Cap Rouge, White Shore Lake, Lake Edward, Bark Lake, Port Arthur, Quebec, Shawinigan Falls, Campsie.
3. Rapid City, Aweme, Cap Rouge, Quebec, Muenster, Fredericton.
4. Qu'Appelle.
- 5.
6. Brome, Chicoutimi West, Montreal, Quebec, Shawinigan Falls, Rutherglen.
- 7.
8. Rock Creek, Grand Forks, Hope, Nicola, Keremeos.
9. Chilcotin, Ashcroft.
10. Bermuda.
11. Clemens, Alkali Lake.
12. Wiarton, Oakbank, Birnam, Lucknow, Bruce Mines, Kakabeka Falls, Winnipeg, Southampton, Qu'Appelle, Cowley, Quesnel, Salmon Arm, Perry Siding, Chilcotin, Elko, Chilliwack, North Bruce.
13. Brantford, Clinton, Port Stanley, Salmon Arm, Tappen, Pend d'Oreille.
14. Birnam, Perbeek, Springdale, Clemens, Tappen, Perry Siding.
15. Brantford (Bow Park), Georgetown, Stoney Creek, Birnam, Paris, Madoc, Brantford, Lucknow, Wexford, Port Dover, Cartwright, Calgary, Medicine Hat, Port Stanley, Toronto, Ranfurly, Daysland, Hillsdown, London, New Westminster, Okanagan Mission, Nelson, North Bruce, Ninga.
16. Westport, Deer Park, Almasippi, Treherne, Agincourt, Brantford, Norwood, Parry Sound, Wetaskiwin.
17. Westminster, Wiarton, Emsdale, Birnam, Paris, Lucknow, Clinton, Port Dover, Goderich, Parry Sound, London, Chilliwack, Armstrong, Okanagan Mission, North Bruce.
18. Westport, Madoc, Peterboro, Brome, Mistassini, Cap Rouge, Bark Lake, Stonecliff, Quebec, Southampton, Lindsay, North Bruce.
19. Windsor, N.S., Norwood, St. John, Charlottetown, Tappen.
20. Springdale.
21. Brantford (Bow Park), Birnam, Paris, Brantford, Lucknow, Clinton, Port Dover, Port Stanley, London.
22. Westport, Hillview, Birnam, Haliburton, Cartwright, Port Stanley, Qu'Appelle, Hillsdown, Sion, Fort Qu'Appelle.
23. Liverpool, N.S., Hillview, Calgary, Perbeek, Ranfurly, Halkirk, Hillsdown, Didsbury, Clemens, Sion, Chaplin, Rathmullen, Kenora.
24. Emsdale, Madoc, Haliburton, White Shore Lake, Edmonton, Swift Current, Perbeek, Ranfurly, Wetaskiwin, Kindersley, Pambrum.
25. Rapid City, Hillview, Brandon, Oakbank, Aweme, Montreal, Qu'Appelle, Springdale, Sion.
26. Minnedosa, Sion.
27. Rapid City, Hillview, Aweme, Cartwright, Beaver Mines, Grenfell, Chaplin, Pense, Pambrum, Melfort, Rosthern, Rathmullen, Saskatoon, Hydraulic.
28. Westport, Emsdale, Almasippi, Treherne, Morden, Aweme, Montague, Kenora, Cartwright, Aitkensville, Minnedosa, Qu'Appelle, Ranfurly, Kindersley, Melfort, Rutherglen, Ninga.
29. Liverpool, N.S., Morden, Oakbank, Kingston, Ranfurly, Kindersley.
30. Cartwright, Edmonton, Dunstable, Ranfurly, Campsie, Sion, Alkali Lake, Halkirk.
31. Almasippi, Treherne, Oakbank, Kenora, Cartwright, Le Pas.

*Auroras recorded.*

1. Sion III.
2. Sion III.
- 3.
4. Rapid City I, Aweme II, Cartwright I, Edmonton II, Winnipeg I, Peace River Crossing, Ranfurly I, Melfort IV.
5. Aweme IV, Schreiber IV, Port Arthur II, Peace River Crossing, Ranfurly II, Pambrum I.
6. Aweme IV, Kakabeka Falls IV, Ranfurly IV.
7. Haileybury IV.
- 8.
9. Schreiber IV.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
19. Minnedosa II.
- 20.
- 21.
22. Cartwright IV.
23. Cartwright IV, Edmonton III.
24. Aitkensville III.
25. Port Dover.
- 26.
- 27.
- 28.
- 29.
- 30.
31. Ranfurly I.

## FORECASTS FOR MAY 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1192. These were divided as follows—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage
Alberta.....	84	64	12	5	86.4
Saskatchewan.....	81	62	16	3	86.4
Manitoba.....	80	60	17	3	85.6
Lake Superior.....	116	89	22	5	86.2
Lower Lake Region.....	110	83	22	5	85.5
Georgian Bay.....	110	81	22	7	83.6
Ottawa Valley.....	89	79	8	2	93.3
Upper St. Lawrence.....	89	76	11	2	91.6
Lower St. Lawrence.....	107	86	17	4	88.3
Gulf.....	111	78	29	4	83.3
Maritime Provinces West.....	109	91	15	3	90.4
Maritime Provinces East.....	109	90	17	2	90.4
Total.....	1192	939	208	45	87.5

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
June 25th, 1913.



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

JUNE, 1913

No. 6

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

On Vancouver Island and along the Fraser River mean temperatures were from 1° to 3° above average. Locally along the Fraser, however, there was a deficiency of about 1°. In the Okanagan Valley and Southeast Kootenay there was an excess of about 2°. In other parts of the Province differences from average were very irregular. The first week was very much warmer than usual, but during the third week temperatures were considerably lower than average.

### WESTERN PROVINCES.

In the country about the Red Deer and Bow Rivers the average temperature was exceeded by 4° or more. In Northern Alberta, however, the excess over average was only 2°. In most parts of Saskatchewan the excess was between 2° and 3°, but in a few instances was more than 4°. In Manitoba the difference was also positive and almost uniformly 3°.

### ONTARIO

In the Rainy River and Algoma Districts temperature conditions were very similar to those which obtained in Manitoba, the average having been exceeded by from 2° to 4°. In the remainder of the Province the differences from average were in nearly all cases negative and ranged between 1° and 3°. In the counties bordering on Lake Ontario, however, there was a positive departure from average amounting to less than 1°. The first eleven days of the month were much cooler than is usual in June, but the latter half of the month, with the exception of the 18th, 19th and 20th, was very warm, maximum temperatures exceeding 90° having been recorded on the 16th, 27th and 30th.

### QUEBEC.

In the Abitibi region the average temperature was exceeded by about 2°, but along the Middle and Lower St. Lawrence and Gulf there were negative departures from normal ranging between 2° and 4°. From the 3rd to the 14th and on the 18th, 19th and 25th temperatures were considerably lower than normal, but the month ended hot.

## MARITIME PROVINCES.

Even in inland towns there were about 5 days on which the temperature did not exceed 65°, and 75° was exceeded on 1 day only. Light frost was recorded in most districts twice during the first two weeks. The monthly mean temperatures were generally 2° lower than normal.

## PRECIPITATION.

In British Columbia and Alberta, along the Qu'Appelle River in Saskatchewan and locally in Manitoba the normal rainfall was well exceeded, but elsewhere in Canada there was a general deficiency. This deficiency was nowhere very great in the Western Provinces, but was very marked in many parts of Ontario, Quebec and the Maritime Provinces.

## HIGH AREAS.

Six areas were charted. One moved in from the middle Pacific Coast, one from northern British Columbia and the other four first appeared to the northward of Saskatchewan. With one exception the areas were comparatively feeble. This appeared over Saskatchewan on the fifth and with increasing intensity moved slowly southward to the Gulf of Mexico. Four of the areas passed across the Great Lakes, while the remaining two passed to the northward.

## LOW AREAS.

Seven areas of low pressure were charted. Five first appeared over British Columbia, one developed over Saskatchewan and one which was unimportant, near James Bay. The general track was across Canada well to the northward of the Great Lakes to the Gulf of St. Lawrence.

## WINDS, JUNE, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days			General Direction
			Miles	Direction	Date	Gales	Strong Wind.	Foggy Winds	
BRITISH COLUMBIA.									
Atlin.....	4622	271	22	S	6	.....	2	16	S
Prince Rupert.....	.....	.....	8	S	8	.....	.....	9	E, S
Victoria.....	5930	463	24	SW	4	.....	8	12	SW
Point Garry.....	.....	.....	12	SW	18	.....	.....	2	E
Vancouver.....	.....	.....	17	S	16	.....	.....	12	W
Kamloops.....	3315	251	17	.....	.....	.....	.....	.....	.....
ALBERTA.									
Edmonton.....	.....	.....	19	.....	.....	.....	2	9	SE
*Calgary.....	3075	189	17	NW	25	.....	.....	18	NW
SASKATCHEWAN.									
Battleford.....	6036	615	47	SE	9	4	.....	13	SE
Prince Albert.....	.....	.....	15	.....	15	.....	.....	9	N.E., SE
Swift Current.....	.....	.....	18	SE	9	.....	12	18	SE
Qu'Appelle.....	6914	475	33	SE	17	1	12	13	SE
MANITOBA.									
The Pas.....	5323	294	26	W	.....	.....	7	23	NEW
Winnipeg.....	8991	613	33	SE	10	2	12	12	NE
ONTARIO.									
Port Arthur.....	6685	433	40	NW	6	1	11	18	E
White River.....	.....	.....	26	W	30	.....	6	24	SW
Cochrane.....	5925	412	18	N	7	.....	.....	30	SW
Perry Sound.....	4190	304	32	NW	1	1	4	17	SW
Sou. Hampton.....	5560	557	36	SW	7	4	16	13	.....
Pelée Island.....	7297	557	22	NW, SW	1-6	.....	9	15	NW
Woodstock.....	5773	359	31	NW	1	2	12	13	W
Guelph.....	6133	329	21	NE	28	.....	1	9	SW
Toronto.....	6953	432	17	W	28	.....	.....	12	W
Kingston.....	5398	279	16	SW, NW	3	.....	.....	16	SW
Stonecliffe.....	3561	229	.....	.....	.....	.....	.....	.....	.....
Ottawa.....	.....	.....	16	SW, NW	3	1-7-30	.....	.....	.....
QUEBEC.									
Montreal.....	9722	647	34	SW	11	1	9	20	SW
Sherbrooke.....	.....	.....	12	NE	12	2	13	15	SW
Quebec.....	8338	530	34	W	16	4	11	15	W
Father Point.....	7885	526	32	S	5	6	5	25	NE
Anticosti, SW.....	9434	601	38	W, SW	28	4	17	7	W
Harrington.....	8445	556	.....	.....	.....	.....	.....	.....	.....
NEW BRUNSWICK									
Pt. Escominac.....	.....	.....	27	NW	2	.....	14	12	NW
Fredericton.....	6046	359	39	NW	2	2	16	12	S
St. John.....	8301	497	35	NW, SW	2-11	6	13	10	SW
Pt. Lepreaux.....	8579	571	.....	.....	.....	.....	.....	.....	.....
NOVA SCOTIA									
Yarmouth.....	8192	558	31	.....	.....	1	12	18	SW
Wolfville.....	.....	.....	40	SW	2	7	20	3	NE
Halifax.....	8361	551	44	NE	29	5	14	10	W
Sable Island.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Flat Point.....	9510	646	.....	.....	.....	.....	.....	.....	.....
PRINCE EDWARD ISLAND									
Charlottetown.....	5879	400	28	S	1	.....	11	13	SW

\* 29 days only.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. JUNE, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.					Days with 61 or more.	No. of auroras.	No. of thunderstorms.	No. of fogs.							
				Mean.	Difference from average.	Yrs Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.												
<b>BRITISH COLUMBIA—</b>																										
<b>S. Vancouver Island</b>																										
Alberni (Peaver Creek)	49 15	124 50	300	53.7	- 5.2	18	87.0	1	45.0	10-17	23.8	3.89	+1.68	0.81	15	15	..	1	..							
Clayoquot	49 11	125 55	27	55.8	+ 1.6	14	70.0	1-18	42.0	5	14.7	6.16	+2.02	1.88	17	13	..	..	..							
Cloos				54.3	—	1	68.0	1	40.0	4-5	12.3	0.00	—	0.92	14	16	..	..	..							
Cowichan (Tzouhalem)	48 25	123 42	170	58.6	—	7	79.0	18	38.0	16	20.1	1.52	—	0.40	14	16	..	..	..							
Duncan Bay				55.8	—	1	81.3	1	40.5	10	17.7	2.27	—	0.45	13	17	..	1	..							
Gulf Bay				57.0	—	1	80.0	1	41.0	10-17	17.8	3.25	—	0.30	18	12	..	..	..							
Lady Smith				57.6	—	1	81.0	1	38.0	13	21.0	1.84	—	0.42	14	16	..	..	..							
Nanaimo	49 10	123 37	125	57.0	—	2	75.0	17	19.5			2.50	—	0.32	18	12	..	1	..							
Nanaimo Bay	43 17	124 12	130	57.6	—	4	75.0	18	38.0	16	17.8	1.67	—	0.45	12	18	..	..	3							
Soft Spring Island	48 50	123 20		52.0	—	1	81.0	2	38.0	14-16	21.1	2.08	—	0.38	13	17	..	..	..							
Shawmoan Lake																										
Sooke	48 41	123 44	125																							
Victoria	48 24	123 19	55	53.8	+ 3.7	21	78.1	2	43.3	6	19.2	1.05	+0.09	0.39	7	23	..	..	2							
<b>N. Vancouver Island</b>																										
Holberg	50 39	128 18		51.7	—	5	76.5	19	43.2	1	13.4	4.61	—	1.24	15	15	..	..	..							
Swanson Bay	50 37	128 53		53.5	—	4	77.0	18	44.0			3.05	—	1.04	14	16	..	..	..							
Triangle Island	50 52	129 5	680	50.2	—	3	59.5	1-20	42.5	12-22	7.9	3.76	—	0.62	11	19	..	..	..							
Quntano	50 32	127 40		54.6	+ 1.1	17	74.0	19	49.0	8	17.7	2.82	-2.76	1.10	17	13	..	..	..							
<b>Lower Fraser River</b>																										
Agassiz	49 14	121 31	52	58.3	- 0.9	21	84.0	1	40.0	6-20	24.6	7.33	+2.64	0.92	17	13	..	..	..							
Challiwick	49 10	121 57	21	58.8	- 0.7	13	79.0	1	44.0	10-15	18.9	3.82	+0.81	0.69	18	12	..	1	1							
Hope	49 23	121 25	500	50.1	—	4	84.0	1	40.0	15	21.5	2.75	—	0.52	14	16	..	3	..							
Ladner	49 05	123 4		57.9	—	13	76.0	6-24	40.0	13	—	2.57	+0.97	0.45	12	18	..	..	..							
New Westminster	49 13	123 54	330	59.4	+ 1.0	25	82.2	1	45.0	10	19.0	4.84	+1.85	1.24	13	17	..	..	..							
North N. comen.	49 12	122 2	59	59.8	+ 0.5	21	82.0	1	41.0	5	20.1	4.25	+0.19	0.71	16	14	..	4	..							
Pemberton Hatchery	50 20	122 33		48.2	—	4	84.0	1	35.0	17	24.0	2.67	—	0.82	8	22	..	..	..							
Pemberton Meadows				57.9	—	1	87.0	1	33.0	5	15.9	0.97	—	0.21	9	21	..	..	..							
Puskin (Stave Falls)	49 16	123 23	125	60.9	—	4	86.0	2	40.0	16	22.9	5.45	—	1.20	18	12	..	..	..							
Stevenson (Garry Point)	49 21	123 17		57.7	+ 1.1	18	70.0	28	41.0	14	15.6	2.89	+1.09	0.48	13	17	..	..	..							
Vancouver	49 17	123 5	136	59.2	+ 0.8	13	76.9	1	44.7	17	16.3	3.81	+1.06	0.89	14	16	..	2	..							
<b>Upper Fraser River</b>																										
Babine Lake	55 38	126 26			+ 1.0	25	72.0	7	29.0	17	23.8	1.99	-1.55	0.42	16	14	..	..	..							
Darkerville	53 02	121 35	4180	51.4	- 0.1	10	73.0	2-3	24.0	17	26.7	2.84	+0.90	0.77	17	17	..	8	..							
Chiloutin (Big Creek)	50 4	123 0	3100	56.9	—	1	82.0	7	31.0	6	28.5	2.40	—	0.48	12	18	..	..	..							
Fort George																										
Fort St. James (Stuarts Lake)	54 26	124 12	2280	58.3	—	1	84.0	7	32.0	5	31.3	2.10	—	1.07	14	16	..	1	..							
Hydraulic																										
Quesnelle	52 59	122 30	1700	59.7	+ 1.8	18	84.0	8	34.0	6-18	26.6	1.55	-0.10	0.32	11	19	..	2	..							
<b>Okanagan Valley</b>																										
Duck Lake	50 3	119 20	1400	61.8	—	1	87.0	3	40.0	13-16	23.6	2.62	—	0.48	15	15	..	4	..							
Hedley	49 35	120 10	1771	61.3	—	8	89.0	1	37.0	14	23.7	2.24	—	0.35	17	13	..	2	..							
Hedley (Nickel Plate)				47.5	—	8	72.9	1	28.0	15	22.9	3.51	—	0.90	9	21	..	..	..							
Keremeos				63.2	—	4	87.0	1	45.0	15	28.4	2.33	—	0.33	18	13	..	3	..							
Kelowna (Kanagan Mission)	49 15	119 29	1200	61.7	+ 2.2	15	86.0	1	41.0	15	22.4	2.33	+0.93	0.33	18	12	..	11	..							
Panetiere	49 29	119 35		61.8	—	7	85.0	6	40.0	15	24.9	3.82	—	0.89	17	13	..	..	..							
Princeton	49 29	120 29	1650	57.9	+ 1.3	16	85.0	1	31.0	15-17	31.0	2.91	+0.96	0.40	13	17	..	6	..							
Ritchlands				55.0	—	1	86.0	7	31.0	17	27.7	3.96	—	0.75	16	14	..	..	..							
Summerland	49 36	119 40	1100	62.5	—	6	86.0	3	40.0	15	21.3	4.60	—	0.93	15	14	..	7	..							
Vernon (Coldstream Ranch)	50 14	119 15	1582	60.5	- 0.1	20	86.0	1	39.0	15-17	22.9	4.17	+2.52	0.73	12	18	..	..	..							
<b>West Kootenay</b>																										
Crawford Bay	49 45	116 45	2000	61.4	—	2	82.0	1	37.0	14	24.9	0.78	—	0.22	9	21	..	2	..							
Creston				59.7	—	1	82.0	3-12	36.0	14	25.1	2.01	—	0.43	17	13	..	4	..							
Faquier						3	89.0	1	38.0	17	24.1	3.39	—	0.93	15	15	..	..	..							
Grand Forks	49 2	118 27		62.0	—	2	87.0	4-8	32.0	14-16	31.6	2.91	—	0.45	17	13	..	..	..							
Greenwood	49 5	118 49		62.2	—	1	99.0	11	42.0	21	24.5	2.10	—	0.50	10	20	..	..	..							
Howser				62.0	—	2	79.0	7	39.0	15-21	21.3	2.48	—	0.50	13	17	..	..	..							
Kaslo	49 52	117 0	1752	57.7	—	2	85.0	7	37.0	17	23.7	2.73	—	0.44	10	20	..	..	..							
Nakusp				58.6	—	2	85.0	7	37.0	15	23.5	3.42	+ 5.8	0.51	15	12	..	6	..							
Nelson	49 29	117 21	1760	60.8	+ 0.1	11	82.0	7	37.0	15	23.5	3.42	+ 5.8	0.50	13	17	..	6	..							
Perry Siding	49 5	117 48	3400	61.0	—	1	86.0	1-2	36.0	14	24.3	4.15	—	0.58	21	9	..	8	..							
Rossland				57.4	—	9	82.0	1-2	38.5	15	17.6	4.15	—	0.68	16	14	..	6	..							
Waneta			1358	60.4	—	1	87.0	2-13	38.0	15-16	25.8	6.19	—	1.68	15	12	..	9	..							
<b>East Kootenay</b>																										
Cranbrook	49 30	115 50		58.7	—	9	88.0	1	26	13-16	45.8	0.86	—	0.50	4	26	..	..	..							
Elko (Franchlands)	49 1	115 5	2984	59.3	+ 2.5	18	88.0	1	24.8	4	23.5	2.84	+1.46	0.47	10	20	..	6	1							
Wilmer	50 34	116 14		59.3	—	4	81.0	10-20	37.0	21	24.0	1.57	—	0.47	10	20	..	4	..							
<b>Thompson River</b>																										
Armstrong				59.2	—	1	87.0	3-7	36.0	17	27.5	4.59	—	1.01	15	15	..	8	..							
Ashcroft	50 32	119 7	1180	65.0	+ 3.9	11	90.0	7	37.0	16	26.5	3.73	+1.73	0.65	16	14	..	..	..							
Enlbury																										
Harper's Ranch	50 41	120 29	1245																							
Kamloops	50 0	120 39	2120	63.7	- 0.3	21	88.0	1	40.8	17	23.7	2.60	-1.32	0.56	11	19	..	..	..							
Mont-Crook				62.4	—	1	89.0	2	38.0	13	33.4	2.45	—	0.44	10	20	..	1	..							
Nicola Lake																										
Salmon Arm	50 42	119																								





## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.							
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.
SASKATCHEWAN—																		
Qu'Appelle River																		
Broadview	50 23	102 33	1960															
Brownhill, Grenfell P.O.	50 23	102 53	1957	59.9	+ 1.0	21	90.0	11	30.0	6.7	24.2	5.51	+ 2.25	1.06	15	15		1
Brownlee	50 45	106 0																
Buchanan	50 59	102 25	1658	59.8	—	9	87.0	12	30.8	6	23.3	2.05	—	0.43	13	17		6
Crescent Lake	49 12	103 4	1855	62.7	+ 1.2	6	88.0	11	39.0	5.5	21.2	5.60	+ 3.45	2.15	9	21		7
Estevan	51 5	103 24		61.6	—	2	92.1	11	36.8	6	24.8	2.38	—	0.36	12	18		
Fort Qu'Appelle	51 5	103 24		59.2	—	6	86.0	12	30.0	6	23.2	1.60	—	0.56	6	24		
Hulford (Dramague)	52 12	105 9		51.0	—	5	82.0	11	23.0	6	30.9	2.78	—	1.00	8	22		
Humboldt	51 22	105 23		60.6	—	2	85.0	10	32.5	5	23.2	2.45	—	3.48	10	20		
Imperial	50 28	103 40	1924	61.3	+ 0.6	24	88.0	11	33.0	5	22.9	4.37	+ 0.39	1.40	8	22		
Indian Head	50 28	103 40	1924	61.3	+ 0.6	24	88.0	11	33.0	5	22.9	4.37	+ 0.39	1.40	8	22		
Koniasack				60.8	—	2	93.0	11	23.0	5	24.7	2.01	—	1.40	8	22		
Manor	49 43	102 2	2064	63.3	+ 4.2	17	88.0	10-11	33.5	3	24.7	2.64	- 0.38	0.53	14	16		4
Moose Jaw	50 21	105 35	1759	62.4	+ 4.5	12	100.0	11	21.0	5	30.1	2.63	—	0.67	9	21		
Moosemin	50 0	101 37	1884	59.1	+ 4.5	12	100.0	11	21.0	5	30.1	2.63	—	0.67	9	21		
Muenster (St. Peter's Mon.)	52 0	105 0	1870	59.7	—	12	82.0	10-11	28.0	6	23.3	5.55	—	2.53	8	23		1
Pilgr	52 25	105 9		58.7	—	12	83.0	9	33.0	3	24.0	3.47	—	2.30	11	19		
Pense (Gatesgarth)	50 20	105 0	1879	62.0	+ 3.4	17	88.0	11	34.0	5	23.2	4.40	+ 0.75	0.97	11	19		
Qu'Appelle	50 30	103 47	2115	61.5	+ 1.9	29	86.0	11	33.0	6	22.6	5.46	+ 1.28	2.13	13	17		3
Quill Lake	52 4	104 14	1600															
Regina	50 27	104 37	1855	61.5	+ 1.3	27	86.0	11	31.0	1-3	23.6	3.72	+ 0.43	1.21	13	17		3
Srassburg	51 5	101 57																
Yarbo (Fairfield)	49 49	104 9		60.2	—	6	89.0	11	29.0	5	27.7	2.93	—	0.92	13	17		1
Yellow Grass	49 49	104 9		61.7	—	2	90.0	11	34.0	6	23.9	2.93	—	1.00	7	23		2
Yorkton	51 11	102 29		62.2	—	4	90.0	12	32.0	3-6	26.8	2.13	—	1.00	7	23		
S. Saskatchewan River																		
Chaplin	50 26	106 39	2202	61.8	+ 0.4	27	89.0	9	29.0	2	23.5	2.13	- 1.24	1.38	9	21	1	5
East End (Divide)	49 31	108 49		59.8	—	5	86.8	10	32.6	6	26.0	4.34	—	1.48	12	15		3
Kelvinhurst (Nashlyn)	51 46	108 10		60.1	—	1	90.0	10-11	32.0	3	25.4	2.51	—	0.59	15	18		
Kindersley	51 46	108 10		60.2	—	3	87.0	11	36.0	1-8	27.6	3.55	—	0.73	13	17		8
Larchmont (Glenbryan)	49 21	109 29																
Oliver	49 54	107 27		60.3	—	4	92.0	11	31.2	3	25.7	4.77	—	1.04	13	17		10
Rathmullen	51 20	108 57																
Swift Current	50 20	107 45	2439	63.6	+ 3.6	26	89.0	10	37.0	3	24.1	3.46	+ 0.41	1.20	12	18		7
N. Saskatchewan River																		
Bathford	52 41	108 20	1620	61.5	+ 2.5	23	88.0	10	35.0	3	22.7	1.70	- 1.77	0.46	11	19		1
Lloydminster	53 18	110 0																
Luseland	52 5	109 34		58.3	—	3	89.0	9	28.5	3	26.0	2.06	—	0.72	10	20		6
Omaha Lake	53 52	109 59																
Prince (Medea)	51 6	108 20	1700	58.7	—	6	90.0	10	22.0	12	27.9	1.31	—	0.48	7	23		2
St. Walburg	51 6	108 20	1700	—	—	1	87.0	10	—	—	—	1.95	—	0.99	8	22		
Scott (Ex. Farm)	51 59	109 30		58.0	—	3	90.1	10	28.7	14	28.3	1.28	—	0.40	11	19		
Waseca	53 6	109 29		58.1	—	6	86.0	9	32.0	3	24.5	1.59	—	0.61	5	25		
The Saskatchewan Forks																		
Chapone (Star City)	52 32	104 13																
Duck Lake	52 54	106 20																
Melfort	52 47	104 30																
Prince Albert	52 10	106 0	1432	60.8	+ 3.2	27	84.0	8	35.0	3	24.9	1.98	- 0.65	0.51	11	19		
Rosthern	52 40	106 20	1657	59.2	—	4	85.7	11	33.0	6	22.3	1.87	—	0.48	9	21		
Saskatoon	52 15	106 30	1571	60.9	+ 1.6	15	90.6	11	33.9	6	22.1	2.92	+ 0.41	0.87	13	17		9
Lower Saskatchewan River																		
Cumberland House	53 56	102 16																
Lost River	53 17	104 21		58.2	—	2	83.0	10-11	31.0	6	24.6	2.10	—	0.78	11	19		1
MANITOBA—																		
Qu'Appelle and Assiniboine Rivers																		
Awenne (St. Albans)	49 42	99 35	1180	65.5	+ 2.8	28	94.5	22	32.5	7	29.4	2.64	- 0.76	0.99	10	20		4
Boissevain	50 25	101 1	1703	63.6	—	2	93.0	24	35.0	7	25.4	1.99	—	0.76	7	23		
Brandon	49 51	99 57	1176	62.9	+ 1.0	25	90.0	22	32.0	6	26.6	2.34	- 0.69	0.97	10	20		2
Carberry	49 52	99 20	1238															
Carman	49 31	98 0	872															
Cypress River	49 33	99 3	1232	62.8	—	8	90.0	14	33.0	7-9	27.3	4.00	—	2.06	8	22		
Hillview	49 55	100 33	1400	62.4	+ 2.4	28	88.0	22	35.0	6	22.7	2.89	- 0.39	0.77	11	19		
Minnedosa	50 15	99 50	1696	63.7	+ 4.1	20	89.0	11	30.0	5	24.9	2.93	- 0.48	1.06	11	19		5
Nimette	49 24	99 38	1563	63.0	—	2	95.0	23	34.0	7	29.4	—	—	—	—	—		
Ninra	49 14	99 51	1649	62.0	—	3	94.0	23	34.0	6	25.0	1.59	—	0.48	6	21		
Pierson	49 11	101 5	1531	58.2	—	8	90.0	23	33.0	3-7	33.4	3.40	—	0.56	9	21		
Poneto	49 34	100 58	1400															
Portage la Prairie	49 57	98 17		64.1	+ 2.8	26	92.0	25	31.0	2	26.7	3.43	+ 1.08	1.42	7	23		
Portage la Prairie (2)	49 56	98 17		64.7	—	8	92.0	25	39.0	3	24.2	3.72	—	1.47	8	22		
Russell	50 59	101 20		50.7	+ 1.9	20	90.0	22	32.0	6	23.0	4.45	+ 1.14	1.12	14	16		
Souris	50 40	97 14	808	64.6	+ 3.2	32	96.0	25	33.0	1	25.8	1.63	—	0.85	4	26		
Treherne	49 36	98 40	1212	61.9	+ 5.8	18	97.0	14	34.0	7	24.6	3.69	—	1.83	13	17		5
Virden	49 51	100 55	1444	62.3	—	8	92.0	21	35.0	5.6	24.8	1.33	—	0.50	5	25		
The Red River																		
Almasippi	49 14	99 20		63.6	+ 3.5	11	94.0	21	30.0	7-8	29.6	2.35	—	0.70	8	22		6
Morden	49 11	98 6	978	64.6	+ 1.7	8	94.0	25	29.0	7	26.0	0.83	—	0.22	8	22		
Oak Bank	49 57	96 42	809	62.0	—	7	88.5	29	31.5	7-8	25.3	3.52	+ 0.38	0.86	8	22		8
Snow Mountain	50 40	97 14	808	64.6	+ 3.2	32	96.0	25	33.0	8	25.6	2.75	- 0.34	1.00	4	26		
Winnipeg	49 53	97 7	760	64.9	+ 2.8	39	91.2	21	33.8	7	24.2	3.27	- 0.17	0.99	11	19		9





## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA JUNE, 1911.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Long. (W)	Elevation above sea level, in feet	TEMPERATURE					PRECIPITATION								
				Mean	Difference from average	No. of observations	Highest	Date	Lowest	Range	Mo. total (inches)	Excess from average	Heaviest fall in month	Days with 40 or more No. of fairs	No. of fairs	No. of thunderstorms	No. of days
NOVA SCOTIA—																	
Advocate .....	45	55	75	50	—	1	52	4	47	5	—	—	—	—	—	—	—
Antigonish .....	44	55	85	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Bridges .....	44	55	85	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Kentville .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Kentville (2) .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Liverpool .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Netagomish .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
New Germany .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Parishboro' .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Port Hastings .....	45	55	45	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Sable Island (P. Pt) .....	44	55	25	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Sable Island (Main Station) .....	44	55	25	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Sydney .....	46	1	55	52	—	1	52	4	47	5	—	—	—	—	—	—	—
Terra .....	45	55	75	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Terra (2) .....	45	55	75	51	—	1	52	4	47	5	—	—	—	—	—	—	—
*Whitehead .....	45	55	4	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Windsor .....	44	55	90	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Wolfville .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Yarmouth .....	43	55	65	51	—	1	52	4	47	5	—	—	—	—	—	—	—
P. E. ISLAND—																	
Charlottetown .....	46	11	35	50	—	1	52	4	47	5	—	—	—	—	—	—	—
Charlottetown Exp. Farm .....	46	11	35	50	—	1	52	4	47	5	—	—	—	—	—	—	—
Hamilton .....	45	55	40	51	—	1	52	4	47	5	—	—	—	—	—	—	—
NEWFOUNDLAND—																	
*Amour Point .....	51	25	21	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Bona .....	47	55	27	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Cape Norman .....	49	55	31	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Ena .....	49	1	25	51	—	1	52	4	47	5	—	—	—	—	—	—	—
*Point Riche .....	47	55	27	51	—	1	52	4	47	5	—	—	—	—	—	—	—
Port aux Basques .....	47	55	27	51	—	1	52	4	47	5	—	—	—	—	—	—	—
St. George's .....	47	55	27	51	—	1	52	4	47	5	—	—	—	—	—	—	—
St. John's .....	47	55	42	51	—	1	52	4	47	5	—	—	—	—	—	—	—
LABRADOR—																	
*North West River .....	51	25	21	51	—	1	52	4	47	5	—	—	—	—	—	—	—
BERMUDA—																	
Prospect .....	32	17	151	71	—	1	82	71	71	0	—	—	—	—	—	—	—

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING JUNE, 1913.

STATIONS.	RAINFALL.				Date.	SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.		Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....										
Annas (Canoe Point) ..	3.92	16	14	0.90	23					
Armstrong.....	1.30	9	21	0.34	21					
Beaver Lake.....	5.62	12	13	1.52	23					
Cogitiam.....										
Cariboo Road No 141 ..	2.10	11	19	0.38	15					
Denman's Island.....	2.00	15	13	0.43	19					
Ferguson.....	2.24	13	17	0.48	30					
Goldstream Lake.....	2.49	14	16	0.81	25					
Hydraulic.....	2.15	10	20	1.05	28					
Hornby Island.....	1.71	13	17	0.38	24					
Invermere.....	3.74	17	13	0.98	19					
Jordan River.....	3.74	13	17	0.98	30					
Jordan River (Bear Creek)	2.73	14	16	0.49	21					
Little Qualicum R. C.A.T.	3.48	17	13	0.55	8					
Lumby.....	2.65	10	20	0.75	20					
Nans Harbour.....	3.60	12	18	0.79	27					
Rock Creek.....										
Shawngnan Lake.....										
Wycliffe.....										
ALBERTA—										
Bardo.....	3.15	7	23	0.77	19					
Bismark.....	1.91	6	24	0.80	27					
Brownhelm.....										
Buttern Lake.....	3.63	13	17	1.75	17					
Brooks.....	5.34	14	16	1.59	26					
Beaver Mines.....	3.16	7	23	0.80	23					
Coleman.....	1.88	13	17	0.41	26					
Cowley.....	2.01	13	17	0.49	26					
Caldwell.....	3.38	10	23	1.33	25					
Charesholm.....	3.60	11	19	1.00	26					
Chirinda.....	3.37	10	23	0.82	19					
Dorealee (Bashaw).....	3.09	5	25	1.00	16					
Dunstable (Five Lakes)	2.19	15	15	0.47	13					
Grassy Lake.....	4.50	6	24	1.59	27					
Jumping Pound.....										
Loch Sloy.....										
Lyndon.....	6.08	8	22	2.12	19					
Lincham.....	5.10	3	25	2.09	26					
La Pearl.....	1.01	6	24	0.28	16					
Lethbridge.....	3.83	14	16	0.79	28					
Macleod.....	12.50	12	18	1.83	19					
Mayercroft.....	2.65	16	14	0.54	29					
Mountain View.....	4.06	5	25	2.98	28					
Monnville (Roxcroft Ranch)	2.65	16	14	0.59	29					
Nateby.....	1.65	11	17	1.02	26					
Nanton.....	7.49	14	16	1.82	26					
Okotoks.....										
Pekisko.....	5.21	17	13	0.71	26					
Ponoka.....	2.15	8	22	0.83	15					
Seven Persons.....	5.56	7	23	3.97	18					
Tilley.....										
Writing-on-Stone (Coots)										
Waterton Mills.....	3.03	12	18	1.12	26					
SASKATCHEWAN—										
Gull Lake.....	3.62	12	18	1.22	19					
Gull Lake (Eks. Swift Cr.)	3.94	8	22	1.98	20					
The Meadows (Battle Cr.)	2.22	11	19	0.56	19					
Willow Creek (Maple Cr.)										
Wapashoe.....	2.47	11	19	0.62	20					
MANITOBA—										
Cartwright.....	1.23	9	21	0.32	13					
Deloraine.....										
Norquay (Swan Lake) ..	2.17	11	19	0.88	23					
Rapid City.....	1.31	11	19	0.40	22					
Rose Bank.....										
ONTARIO—										
Brantford (Bow Park Farm)	2.25	8	22	0.72	6					
Deer Park.....	1.13	4	26	0.73	7					
Dutton.....	1.85	3	27	1.00	20					
Elmsdale.....	1.88	10	20	0.72	20					
Fort Frances.....										
Georgetown.....	2.67	10	21	0.78	6					
Grantham.....	3.10	8	22	2.25	7					
Grand Valley.....	1.98	6	24	0.74	7					
Hillier.....	1.35	5	25	0.40	6 27					
Madoc.....	0.84	4	26	0.46	6					
Niagara Falls.....	0.88	4	26	0.32	26					
Princeton.....	2.51	3	27	1.95	6					
Point Clark.....	1.35	3	27	0.60	23					
Rossmore.....										
Sydenham.....	1.53	4	26	0.85	6					
Stratford.....	2.84	4	26	0.95	26					
Watford.....	3.52	5	25	1.46	23					
Westport.....	0.88	6	24	0.45	6					
Westminster.....	2.78	5	25	1.01	27					
Wooler.....										
Wesley.....										
Wattsway.....										
Winton.....	1.81	7	23	0.83	5					

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp; WIND DURING JUNE, 1913.

STATIONS	RAINFALL					SNOWFALL					REMARKS
	Amount in inches	No. of Days of or over	No. of Fair Days	Heaviest Fall in Month	Date	Amount in inches	No. of Days	Heaviest Fall in Month	Date		
QUEBEC—											
Bark Lake (Riviere Deserte)	2.95	7	23	0.60	3	*	1	*	8		
Kipawa Dam	1.13	5	25	0.40	24						
Lucerne	1.04	5	25	0.55	23						
Perkins Mills	1.92	7	28	1.74	2						
Quinze Dam	2.15	12	18	0.55	3						
Timiskaming											
NEW BRUNSWICK—											
Point Escumine	2.14	6	24	0.54	2						
NOVA SCOTIA—											
Big Mushamush Lake (Mahone)											
Kentville											
Milton											
Mushamush River (Mahone)											
Nappan	1.68	7	23	0.71	2						
South Alton	1.29	7	23	0.63	1						
White Rock	2.63	4	25	1.00	16						



## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF JUNE, 1913

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	PRESSURE.			Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				Mean reduced.	Highest.	Lowest.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF JUNE, 1913

STATION	DIRECTION OF WIND FROM								Total number of days with wind	
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	0	0	1	6	5	0	14	5	0	30
Didsbury.....	0	7	9	0	1	4	2	0	0	23
Endiang.....										
Hailkirk (Emsburg).....	3	5	9	15	7	3	5	13	0	60
Hillsdown.....	0	2	0	17	5	2	0	30	4	60
Loveland.....	2	14	10	11	1	4	7	11	0	60
Macleod.....	8	0	8	1	1	0	19	0	23	60
Pakan (Victoria).....										
Ranfurly (Watfield).....	14	9	16	8	2	3	15	15	8	90
SASKATCHEWAN—										
Chaplin.....	1	0	5	9	1	0	2	6	0	24
Crescent Lake.....	1	6	0	4	6	2	3	4	4	30
Estevan.....	1	2	7	5	7	1	2	4	1	30
Fort Qu'Appelle.....	1	5	13	13	3	3	10	4	8	60
Grenfell (Brownhill).....	2	7	3	20	8	5	2	13	0	60
Indian Head.....	5	12	9	14	11	5	4	13	17	90
Larchmont (Glenbryan).....	0	19	3	10	1	2	8	17	0	60
Moosomin.....										
Muenster (St. Peter's Monastery).....	7	5	4	13	12	6	4	9	0	60
Onion Lake.....										
Pense (Gatesgarth).....	0	1	3	14	2	1	3	6	0	30
Waseca.....	0	3	2	11	1	1	2	10	0	30
MANITOBA—										
Berens River.....										
Brandon.....	3	21	3	12	1	9	7	12	12	78
Hillview.....	6	18	6	18	7	6	10	16	0	87
Moose Horn Bay (Atkensville).....	5	11	10	4	10	5	4	4	7	60
Morden.....	10	6	6	5	8	7	11	3	4	60
Oak Bank.....	19	6	0	1	13	5	8	8	0	60
Stony Mountain.....	2	10	4	7	18	3	10	0	0	54
ONTARIO—										
Agincourt.....	2	1	11	16	11	22	5	20	2	90
Alton.....										
Beatrice.....	6	0	0	0	11	8	3	17	45	90
Burnam.....	19	6	11	4	6	2	5	2	5	60
Clinton.....	14	4	1	3	12	3	16	7	0	60
Cottam.....	16	1	6	4	19	5	9	0	0	60
Gravenhurst.....	14	2	8	5	7	9	15	7	23	90
North Bruce.....	7	2	3	1	47	6	11	13	0	90
Orillia.....	6	0	0	4	4	6	7	3	0	30
Owen Sound.....										
Point Clark.....										
Port Dover.....	5	3	4	4	4	4	4	2	0	30
Stoney Creek.....	2	12	18	0	0	13	44	1	0	90
Uplands.....										
Wexford.....	0	0	4	0	0	1	2	8	15	30
QUEBEC—										
Abitibi.....	25	1	5	0	21	3	32	3	0	90
Anticosti, W. Pt.....	13	7	6	3	20	4	11	26	0	90
Anticosti, Heath Point.....										
Bicquet.....	2	5	0	0	6	20	28	8	21	90
Brome.....	30	2	1	0	10	11	27	4	5	90
Cape Chatte.....	10	1	13	0	3	6	40	1	16	90
Cape Magdalen.....	1	2	0	3	22	2	4	46	10	90
Cap Rouge.....	11	6	0	0	0	0	1	12	0	30
Chicoutimi.....	0	21	0	6	0	23	0	19	21	90
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	5	0	7	1	0	0	11	3	2	29
Moncton.....	0	1	1	3	2	1	18	4	0	30
Pt. Lepreaux.....	12	2	3	2	13	12	22	9	0	75
Sussex.....	4	2	0	0	0	3	3	6	12	30
NOVA SCOTIA—										
Kentville.....	3	3	8	1	4	10	15	16	0	60
Parishboro.....										
Port Hastings.....	0	1	0	12	1	12	0	4	0	30
Sable Island, E. Pt.....										
Truro.....	17	2	1	0	13	24	18	11	1	90
Whitehead.....	17	2	5	3	15	42	4	2	0	90

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
JUNE 1913.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.....			.04	.19	.22	.32	.37	.52	.56	.60	.64	.64	.53	.47	.39	.10		
Salmon Arm.....			.29	.49	.58	.70	.60	.65	.63	.61	.61	.66	.53	.51	.53	.41	.08	
Vancouver.....		.06	.37	.38	.38	.33	.33	.47	.53	.47	.47	.51	.50	.51	.50	.33	.05	
Agassiz.....				.10	.31	.39	.44	.46	.41	.47	.43	.45	.43	.47	.43	.16		
Tranquille.....																		
Summerland.....		.16	.36	.36	.31	.42	.45	.54	.60	.59	.55	.57	.49	.42	.39	.22		
Kamloops.....		.05	.24	.40	.56	.71	.65	.65	.66	.65	.62	.60	.53	.44	.42	.24	.04	
Harper's Ranch.....		.05	.30	.34	.40	.47	.50	.51	.53	.51	.51	.51	.46	.43	.50			
Edmonton.....																		
Lethbridge.....																		
Lacombe.....																		
Medicine Hat.....		.02	.41	.54	.63	.67	.71	.75	.78	.75	.76	.70	.60	.61	.57	.37	.03	
Fort Dunvegan.....																		
Fort Vermilion.....																		
Battleford.....		.03	.28	.38	.58	.63	.65	.63	.70	.77	.72	.69	.65	.59	.50	.43	.08	
Indian Head.....			.30	.50	.54	.53	.55	.58	.67	.67	.62	.62	.55	.52	.48	.33		
Moosejaw.....		.30	.51	.51	.67	.63	.61	.64	.69	.61	.55	.55	.53	.53	.52	.47	.13	.01
Seely.....	.04	.19	.31	.44	.52	.60	.58	.61	.62	.60	.60	.52	.54	.51	.41	.21	.05	
Rothenham.....		.15	.43	.47	.56	.54	.55	.52	.55	.56	.54	.55	.59	.55	.54	.55	.23	
Brandon.....			.02	.41	.63	.73	.74	.73	.73	.74	.72	.69	.58	.39	.19			
Winnipeg.....		.03	.47	.63	.73	.78	.77	.77	.80	.82	.82	.79	.77	.74	.71	.45	.05	
Halleybury.....		.10	.49	.61	.60	.67	.72	.77	.76	.77	.79	.77	.72	.67	.62	.49	.02	
Woodstock.....			.26	.67	.70	.75	.78	.83	.89	.86	.89	.87	.83	.82	.65	.48	T	
Lindsay.....				.52	.75	.76	.74	.78	.84	.79	.78	.77	.75	.74	.27	T		
Barrie.....			.16	.62	.64	.69	.76	.79	.83	.77	.84	.82	.82	.76	.69	.12		
Toronto.....			.31	.67	.80	.80	.75	.76	.81	.75	.85	.81	.77	.79	.72	.58	.06	
Kingston.....		.02	.38	.60	.69	.71	.72	.79	.84	.84	.81	.81	.78	.78	.70	.46	.02	
Ottawa.....		.06	.54	.76	.77	.79	.81	.80	.77	.77	.80	.79	.73	.66	.68	.51	.06	
Montreal.....		.04	.57	.73	.77	.76	.73	.70	.73	.70	.72	.72	.69	.61	.61	.32		
Cap Rouge.....			.56	.60	.67	.71	.69	.71	.76	.70	.68	.62	.58	.44	.40	.20		
Quebec.....			.31	.54	.60	.62	.70	.72	.69	.62	.59	.59	.55	.49	.45	.26		
Ste. Anne de la Pocatiere.....	.15	.46	.51	.46	.52	.54	.68	.72	.72	.74	.63	.62	.49	.42	.33	.08		
Sherbrooke.....	.12	.53	.56	.60	.51	.62	.72	.67	.60	.65	.66	.63	.61	.54	.38	.02		
Fredericton.....	.02	.25	.56	.67	.69	.66	.62	.59	.63	.67	.67	.65	.68	.60	.50	.09		
Charlottetown.....	.07	.33	.46	.60	.64	.59	.58	.62	.60	.68	.64	.66	.65	.56	.45	.02		
Napan.....	T	.33	.52	.64	.63	.69	.69	.70	.62	.64	.67	.66	.65	.69	.52	.21		
Wolfville.....		.06	.38	.55	.63	.62	.66	.70	.69	.70	.70	.71	.71	.71	.62	.53	.15	
Kensington.....																		

## SUMMARY OF SUNSHINE RECORDS

	Victoria.	Salmon Arm.	Vancouver.	Agassiz.	Tranquille.	Sumnerland.	Kamloops.	Harper's Ranch.	Edmonton.	Lebbridge.	Lacombe.	Medicine Hat.	Fort Duvergan.	Fort Vermilion.	Indian Head.	Moose Jaw.	Scott.	Rosbarn.	Brandon.	Winnipeg.	Halifax.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kinston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Ste Anne de la Pocatiere.	Sherbrooke.	Fredricton.	Charlottetown.	Napan.	Wolfville.	Montville.	
Registered duration in hours.....	108	217	187	140	191	227	171	171	.....	.....	.....	267	.....	.....	250	255	252	220	235	217	302	286	300	318	280	310	286	300	305	147	117	220	312	235	237	216	206	271
Percentage of possible duration ..	25	48	38	31	40	46	33	.....	.....	.....	.....	55	.....	.....	50	46	52	41	47	45	62	60	67	51	62	67	65	66	66	52	48	51	55	55	52	57	58	
Difference from average .....	10	—	—	—	—	—	—	—	—	—	—	—	—	—	+ 5 + 4	—	—	—	—	+ 0 + 10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Maximum percentage on any day ..	83	85	91	77	87	88	78	.....	.....	.....	.....	78	.....	.....	85	81	91	93	91	68	87	91	88	75	86	92	89	93	97	89	86	91	90	90	88	92		
Date of minimum .....	1	6	1	1	5	14	6	.....	.....	.....	.....	6	.....	.....	10	21	15	8	7	3	19	9	10	28	11	9	10	21	28	4	28	.....	17	15	15	15		
Number of days completely clouded .....	1	1	2	6	3	7	5	.....	.....	.....	.....	1	.....	.....	2	1	2	4	5	2	0	0	0	0	1	1	1	1	0	0	1	1	1	1	1	1	1	

## Thunder recorded:

1. Montague, Port Burwell, Port Arthur, Yellow Grass, Pense, Fort Qu'Appelle.
2. Liverpool, Reserve 40, Yarmouth, Haileybury, London.
3. Westminster, Madoe, Lucknow, North Gower, Ottawa, Lindsay, Didsbury, Halkirk, Clemens, Sion.
4. Cartwright, Rapid City, Westport, Liverpool, Hillview, Awenne, North Gower, Fredericton, Halifax, St. John, Chaplin, Yellow Grass, Saskatoon, Rathmullen, Pense, Fort Qu'Appelle, Crescent Lake, Brooks, Perbeck, Clemens, Harmattan, Loveland, Ranfurly, Sion, Daysland, Campsie, Springdale, Hydraulic, Wilmer, Vavenby.
5. Reserve 40, Haliburton, Kakabeka Falls, Hillview, Almasippi, Awenne, Oakbank, Treherne, Fredericton, Winnipeg, Minnedosa, Qu'Appelle, Saskatoon, Kindersley, Crescent Lake, Halkirk, Harmattan, Loveland, Ranfurly, Sion, Campsie.
6. Princeton, Dutton, Westport, Georgetown, Brantford (Bow Park), Brome, Agincourt, Beatrice, Paris, Renfrew, Bruce Mines, Peterboro, Madoe, Morrisburg, Brantford, Aurora, Norwood, Montague, Wexford, Clinton, Birnam, Lucknow, Montreal River, Kingston, Southampton, Parry Sound, Grayhurst, Lindsay, London, Guelph, Loveland.
7. Westminster, Deer Park, Big Chute, Brantford, Port Stanley, Sion, Grand Forks, Greenwood, Princeton, Waneta, Armstrong, Rossland.
8. Pekisko, Dunstable, Mayercroft, Halkirk, Perbeck, Hillsdown, Sion, Beaver Lodge, Campsie, Okotoks, Nelson, Salmon Arm, Wilmer, Waneta, Rossland, Springdale, Hydraulic, Rock Creek, Invermere, Annis, Crawford Bay, Creston, Elko, Grand Forks, Nakusp.
9. St. Stephen, Brooks, Beaver Mines, Pekisko, Nanton, Cowley, Clemens, Harmattan, Macleod, Ranfurly, Sion, Beaver Lodge, Campsie, Springdale, Invermere, Elko, Golden, Grand Forks, Nakusp, Nelson, Waneta, Perry Siding, Rossland.
10. Rathmullen, Prince, Divide, Perbeck, Clemens, Hillsdown, Harmattan, Sion, Okotoks, Springdale, Rossland.
11. Aitkensville, Saskatoon, Rathmullen, Munster, Kindersley, Gull Lake, Cowley, Harmattan, Sion, Springdale, Okanagan Mission, White Shore Lake.
12. Cartwright, Reserve 40, Haliburton, Aitkensville, Almasippi, Oakbank, Winnipeg, Saskatoon, Rathmullen, Pense, Fort Qu'Appelle, Sion, Beaver Lodge, Campsie, Springdale, Annis, Greenwood, Hedley, North Nicomen, Okanagan Mission, Quesnel, Salmon Arm, Tappen, Perry Siding.
13. Cartwright, Rapid City, Emsdale, Reserve 40, Montreal River, Kakabeka Falls, Hillview, Aitkensville, Oakbank, Dunstable, Halkirk, Perbeck, Clemens, Lacombe, Hillsdown, Ranfurly, Sion, Campsie, Springdale, North Nicomen, Almasippi, North Gower, Winnipeg, Minnedosa, Qu'Appelle, Moose Jaw, Pense, Fort Qu'Appelle, Crescent Lake, Perry Siding, Wetaskiwin.
14. Rapid City, Georgetown, Reserve 40, Kakabeka Falls, Hillview, London, Perbeck, Clemens, Hillsdown, Ranfurly, Campsie, Springdale, Chilcutin, Creston, Elko, Keremeos, North Nicomen, Quesnel, Salmon Arm, Waneta, Perry Siding, Shawinigan Lake, Duck Lake.
15. Westminster, Georgetown, Brantford (Bow Park), Brome, Agincourt, Reserve 40, Paris, Bruce Mines, Peterboro, Madoe, Chilliwaek, Hope, Nicola, Princeton, Salmon Arm, Waneta, Armstrong, Duck Lake, Brantford, Norwood, Port Burwell, Clinton, Birnam, Lucknow, Markdale, Woodstock, Montreal, Ottawa, Kingston, Springdale.
16. Princeton, Georgetown, White Rock, Point Lepreau, Liverpool, Windsor, N.S., Grand Falls, Kentville, St. Stephen, Brome, Cape Chatte, Pambrum, Fort Qu'Appelle, Divide, Gull Lake, Brooks, Pekisko, Cowley, Mountain View, Halkirk, Clemens, Lacombe, Sion, Campsie, Chicoutimi West, St. Anne, Shawinigan Falls, Lake Edward, Cap Rouge, Big Chute, Paris, Renfrew, Morrisburg, Brantford, Troquois Falls, Lucknow, Markdale, Manouan Crossing, North Gower, Fredericton, Yarmouth, St. John, Quebec, Montreal, Ottawa, Moose Jaw, Saskatoon, Rathmullen, Springdale, Chilcutin, Nakusp, Nanase Bay, North Nicomen, Okanagan Mission, Vavenby, Armstrong, White Shore Lake.
17. Chicoutimi, Almasippi, Yarmouth, Moose Jaw, Rathmullen, Pambrum, Divide, Gull Lake, Lethbridge, Sion, Summerland, Vavenby.
18. Cartwright, Liverpool, Almasippi, Invermere, Port Stanley, London, Kindersley, Fort Qu'Appelle, Duck Lake, Okanagan Mission, Princeton, Summerland, Wilmer, Tappen, Waneta, Perry Siding, Armstrong, Rossland, Pekisko, Cowley, Lethbridge, Alix, Halkirk, Perbeck, Clemens, Lacombe, Hillsdown, Macleod, Loveland, Ranfurly, Sion, Campsie, Springdale, Chilliwaek, Creston, Elko, Grand Forks, Hope, Nakusp, Nelson, Monte Creek.

19. Westminster, Georgetown, Brantford (Bow Park), Liverpool, North Bruce, Paris, Brantford, Clinton, Birnam, Lucknow, Duck Lake, Invermere, Chibougamau, Chibougamau Bay, Creston, Elko, Hedley, Hope, Keremeos, Nelson, Okanagan Mission, Princeton, Westsask, London, Saskatoon, Rathmullen, Pambrum, Brooks, Beaver Mines, Pekisko, Cowley, Mountain View, Mayeroff, Battle Creek, Perbeck, Clemens, Hillsdown, Hachmattan, Macleod, Lacombe, Ramoth, Sion, Springfield, Salmon Arm, Summerland, Wilmer, Tappen, Waneta, Perry Siding, Armstrong.

20. Westminster, Brantford (Bow Park), New Germany, Chibougamau, Chicoutimi, Shawinigan Falls, Mistassini, Cap Rouge, Paris, Kindersley, Fort Qu'Appelle, Divide, Brooks, Hallett, Harrold, Ranfurly, Sion, Campsie, Springdale, Salmon Arm, Beaver Creek, Birnam, Manouan Crossing, Anticosti, S. W. P., Quebec, Port Stanley, Halleybury, Chaplin, Rathmullen, Summerland, West, et al., Perry Siding, Armstrong, White Shore Lake.

21. Liverpool, Hillview, Port Stanley, Chaplin, Saskatoon, Rathmullen, Prince, Pandora, Pense, Divide, Battle Creek, Ranfurly, Okanagan Mission, Princeton, Summerland, Armstrong.

22. Cartwright, Reserve 40, Aitkensville, Mississippi, Awemo, Oakbank, Tschern, Battleford, Halifax, Winnipeg, Minnedosa, Moose Jaw, Chaplin, Saskatoon, Kindersley, Divide, Crescent Lake, Gull Lake, Dunstable, Sion, Athabasca, Campsie, Springdale, Summerland.

23. Cartwright, Rapid City, Reserve 40, Hillview, Aitkensville, Mississippi, Oakbank, Winnipeg, Qu'Appelle, Chaplin, Saskatoon, Pambrum, Pense, Fort Qu'Appelle, Crescent Lake, Brownhill, Grenfell, Sion, Okotoks, Springdale, Annis, Chilcotin, Salmon Arm, Summerland.

24. Cartwright, Reserve 40, Hillview, Aitkensville, Mississippi, Oakbank, Morden, Treherne, Winnipeg, Minnedosa, Rathmullen, Crescent Lake, Halkirk, Clemens, Hillsdown, Ranfurly, Sion, Departure Bay, Chilcotin, Nelson, Perry Siding.

25. Emsdale, Brantford (Bow Park), Agincourt, Bruce Mines, Port Dover, Wexford, Clinton, Birnam, Lucknow, Morden, Markdale, Kakabeka Falls, Meaford, Parry Sound, Winnipeg, Gravenhurst, London, Goderich, Loveland, Sion, Alberni, Chilcotin, Nelson.

26. Westminster, Westport, Georgetown, Brantford (Bow Park), Brone, Shawinigan Falls, Agincourt, Big Chute, North Bruce, Paris, Okanagan Mission, Princeton, Vavenby, Renfrew, Madoc, Brantford, Aurora, Montague, Port Dover, Clinton, Birnam, Lucknow, Markdale, Brandon, Meaford, Cottam, Woodstock, Montreal, Ottawa, Kingston, Parry Sound, London, Goderich, Clarinda, Loveland, Chilcotin.

27. Cartwright, Georgetown, Brantford (Bow Park), Point Lepreaux, Kentville, Cap Rouge, Big Chute, North Bruce, Bruce Mines, Battle Creek, Elko, Okanagan Mission, Rossland, Brantford, Port Burwell, Clinton, Lucknow, Orillia, Kakabeka Falls, Aitkensville, Awemo, Brandon, Fredericton, Quebec, Montreal, Ottawa, Kingston, Parry Sound, Port Arthur, Fort Qu'Appelle, Crescent Lake, Waterton Mills, Clarinda.

28. Rapid City, Georgetown, Reserve 40, Big Chute, North Bruce, Clinton, Hillview, Oakbank, Morden, Treherne, Halifax, St. John, Winnipeg, Minnedosa, Fort Qu'Appelle, Crescent Lake, Bismark, Waterton Mills, Cowley, Mountain View, Beaver Lodge, Hydraulic, Annis, Chilcotin, Okanagan Mission, Vavenby, Tappen, Armstrong.

29. Cartwright, Rapid City, Lake Edward, Reserve 40, Bruce Mines, Oakbank, Southampton, Winnipeg, Chaplin, Lost River, Saskatoon, Pense, Fort Qu'Appelle, Crescent Lake, Waterton Mills, Dunstable, Cowley, Mountain View, Perbeck, Clemens, Hillsdown, Loveland, Beaver Lodge, Springdale, Okanagan Mission, Waneta.

30. Georgetown, Emsdale, Chicoutimi, Shawinigan Falls, Mistassini, Cap Rouge, Reserve 40, Ronville, Iroquois Falls, Birnam, Lucknow, Manouan Crossing, Quebec, Montreal, Gravenhurst, Halleybury, Goderich, Fort Qu'Appelle, Ranfurly, Springdale, Hydraulic, Keremeos, Okanagan Mission, Tappen, White Shore Lake.

## Auroras recorded:

1. Bruce Mines II, Haileybury IV, Perbeck.
- 2.
- 3.
- 4.
- 5.
6. Schreiber IV.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
18. Chaplin.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
28. White Shore Lake.
- 29.
- 30.



## FORECASTS FOR JUNE 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1241. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully	No. Partly.	No. Not.	Per- centage.
Alberta.....	74	70	16	8	78.4
Saskatchewan.....	53	48	18	9	76.0
Manitoba.....	78	57	15	8	80.1
Lake Superior.....	111	71	27	13	76.1
Lower Lake Region.....	116	42	19	2	80.8
Georgian Bay.....	113	88	21	4	87.4
Ottawa Valley.....	102	81	19	2	88.7
Upper St. Lawrence.....	102	82	18	2	89.2
Lower St. Lawrence.....	119	89	25	11	80.3
Gulf.....	120	74	35	11	79.2
Maritime Provinces West.....	117	77	29	11	78.2
Maritime Provinces East.....	117	74	31	12	76.5
Total.....	1241	875	275	91	81.5

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,  
July 25th, 1913.



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# Monthly Weather Review

VOL. XXXVII.

JULY, 1913

No. 7

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## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

During the first twelve days showers occurred frequently throughout the Province, while on Vancouver Island and the lower mainland the nights were cool. In the Kootenays the night temperatures continued to be lower than normal until the 18th. The latter part of the month was dry and hot. The mean temperature of the month was about  $2^{\circ}$  below average, except on Vancouver Island and in some localities along the Lower Fraser.

### WESTERN PROVINCES.

There were four or five days during the month on which the highest temperature was lower than  $65^{\circ}$ , while in few districts was  $80^{\circ}$  reached on more than five days. There was no frost, but on the 27th a minimum of  $37^{\circ}$  was recorded generally in Alberta and Saskatchewan. The mean temperature of the month was from  $1^{\circ}$  to  $3^{\circ}$  lower than normal.

### ONTARIO.

Except in the Lake Superior districts, where there was a negative difference of about  $3^{\circ}$ , the mean temperature differed very little from average. Many districts reported a temperature of about  $1^{\circ}$  below average, and others about the same amount above. On five days the maximum temperature was  $90^{\circ}$  or higher, and of the remaining days 13 had temperatures of  $80^{\circ}$ .

### QUÉBEC.

Temperature conditions along the middle St. Lawrence were almost identical with those which prevailed in Ontario, but elsewhere in the Province the mean temperatures were  $2^{\circ}$  or more below average.

### MARITIME PROVINCES.

In New Brunswick mean temperatures differed very little from average, but in northern Nova Scotia and Prince Edward Island there was a negative difference of from  $1^{\circ}$  to  $3^{\circ}$ .

## PRECIPITATION.

## BRITISH COLUMBIA.

In the Okanagan Valley, about the Thompson River, and along the North Coast the precipitation was in defect of normal. Elsewhere in the Province there was a small excess. Most of the rainfall occurred early in the month and the latter part was hot and dry.

## WESTERN PROVINCES.

The majority of stations reported a deficiency of rainfall. The amount was well distributed in showers throughout the month, while the actual deficiencies were in most cases small.

## ONTARIO.

There was a general deficiency throughout the Province, which varied from 20 to 50% of the normal quantity. Heavy rains occurred in most districts sometime in the first week, but the remainder of the month was very dry, with light and infrequent showers.

## QUÉBEC.

Rainfall was about 30% less than the normal amount. Showers were frequent, occurring on from 9 to 15 days, but, except at the close of the first week, were very light.

## MARITIME PROVINCES.

In New Brunswick rain was recorded on from 7 to 21 days, and was in excess of average by about 25%, while in Nova Scotia the excess was smaller.

## ATMOSPHERIC PRESSURE.

From Kingston east to the Atlantic mean atmospheric pressure was from .01 to .08 of an inch below normal, while westward from the Great Lakes the general difference from average was positive.

## HIGH AREAS.

Seven areas of high pressure were charted. Two first appeared on the Alaskan coast, two on the coasts of British Columbia, two in the North Pacific States, and one to the northward of Manitoba.

The general track of the areas was over the Great Lakes, thence southeasterly to the United States Atlantic seaboard. They were generally of the usual summer type of feeble systems.

## LOW AREAS.

Nine areas of low pressure were sufficiently defined to allow of their paths being approximately charted. Five first appeared in the far northwestern portion of the continent; one near Vancouver Island, one in the North Pacific States, one in Lower California, and one in Northern Quebec.

The general course of the areas after leaving the western portion of the continent was far to the northward of the Great Lakes, thence over the Gulf of St. Lawrence.

## WINDS, JULY, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	6028	345							
Prince Rupert.....	5502	451	35	W	6	5	3	12	SW
Victoria.....									
Point Garry.....									
Vancouver.....									
Kamloops.....	2990	179	13	W	3-21-27-29			6	
ALBERTA.									
Edmonton.....									
*Calgary.....	3235	274	19	NW	10		1	4	SE
SASKATCHEWAN.									
Battleford.....	6574								
†Prince Albert.....	4159	325	18	SW	7-14		2	14	
Swift Current.....									
Qu'Appelle.....	6891	362	32	NW	12	2	8	17	NW
MANITOBA.									
The Pas.....	7678	411				1	6	13	SW,W
Winnipeg.....	8218	551	39	W	8	4	14	12	SW,NW
ONTARIO.									
Port Arthur.....	7423	468	33	W	9	3	5	15	NW
White River.....									
Cochrane.....		361		W	6	1	11	11	
Barry Sound.....	4804	392	20	SW, SE	7-12		5	6	SW
Sou. Hampton.....	6762	655	36	NW	6	9	10	4	NW
Pelee Island.....	7343	508	36	N	6	7	8	11	
Woodstock.....	6414	516	36	NW	13	2	4	13	NW
Guelph.....	6789	478					2	12	SW
Toronto.....	7708	591	36	W	13	3	8	4	NW,W
Kingston.....	6320	386							NW
Stonecliffe.....	3259	174	19	W	7		1	5	SW
Ottawa.....									
QUEBEC.									
Montreal.....	9812	497	30	SW	1	4	7	15	SW
Sherbrooke.....									
Quebec.....	7512	459	23	SW	13	2	4	14	SW
Father Point.....	7534	458	32	N	5	3	7	10	W
Anticosti, SW.....	8661	559	34	SE	19	3	7	11	SE
Harrington.....	8883	605	46	SW	3	5	11	14	
NEW BRUNSWICK									
†Pt. Escominac.....	4656	435	27	NW	25	1	4	8	S,SW
Fredericton.....	4905	334	22	NW,SW	25-26		6	5	W,SW
St. John.....	6959	392	31	SW	26	3	5	11	S
Pt. Lepreau.....	6192	377	26	S	10	1	2	11	W
NOVA SCOTIA									
Yarmouth.....	6679	400	21	SW	1		2	12	SW,S
Wolfville.....									
Halifax.....	7514	353	27	W	23	1	1	19	W,SW
Sable Island.....	5762	321	20	SE	10		1	12	SW,SE
Flat Point.....	8764	414	32	NW	26	1	10	13	W
PRINCE EDWARD ISLAND									
Charlottetown.....	4923	381	26	SE	10	1	2	6	SW

\* 28 days only. † 29 days only. ‡ 15 days only.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. JULY, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.								
				Mean.	Difference from average.	Yrs Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorm.
BRITISH COLUMBIA.																		
S. Vancouver Island																		
Alberni (Heaver Creek)	49 15	124 49	390	62.2	+ 3.6	13	96.0	20	40.0	3-29	26.5	2.01	+1.09	1.19	8 23			
Chaycoquet	49 11	125 55	27	60.4	+ 2.2	14	83.0	22-31	46.0	12 18 6	3.25	+1.24	0.91	9 22				
Cloose				57.5		1	73.0	20-22	45.0	16 14 1	3.46		1.09	7 24				
Cowichan (Pauludem)	48 25	123 42	176	62.7		9	50.0	19	42.5	3-29	23.2	0.87		0.34	5 26			
Departure Bay				63.8		1	88.2	20	44.8	3 18 7	1.87		0.83	5 26				
Gillis Bay				61.9		1	88.0	18-20	42.0	28 21 8	1.98		0.71	9 22				
Ladysmith				61.9		1	91.0	20	41.0	2 21 7	0.77		0.32	6 25				
Nanaimo	49 10	123 37	125	64.2	+ 1.1	13	88.8	20	44.8	3 15 2	1.31	+0.56	0.37	8 23				
Nanaimo Bay	49 17	123 12	130	61.7		2	89.5	20	42.0	29-30	23.2	1.34		0.50	8 23			
Salt Spring Island	48 50	123 20		61.3		4	87.0	20	45.0	13 19 6	1.33		0.46	8 23				
Shawinigan Lake				62.2		1	96.0	29	43.0	3 29 21 4	0.92		0.28	7 24				
Smoke	48 41	123 44	25	61.8														
Victoria	48 21	123 19	85	62.2	+ 1.0	21	85.4	20	45.3	29 19 8	0.45	+0.10	0.17	6 25				
N. Vancouver Island																		
Holberg	50 39	123 18		58.6		5	80.0	21	45.0	3 14 1	5.16		1.10	17 14				
Swansea Bay	50 37	126 53																
Triangle Island	50 52	129 5	680															
Quatsino	50 32	127 40		58.1	+ 0.6	18	84.0	20	45.0	3-29	18.0	2.67	-0.39	0.66	20 11			
Lower Fraser River																		
Agassiz	49 14	121 31	52	62.5	- 1.5	21	91.0	22	45.0	16 20 9	3.71	+1.41	0.74	11 20				
Chilliwack	49 10	121 57	21	63.4	- 0.7	13	88.0	19	42.0	3 20 6	2.53	+0.50	0.68	11 20				
Hopse	49 23	121 25	500	63.4		4	89.0	18	43.0	3 20 4	2.54		0.47	10 21				
Ladner	49 05	123 4		62.7	+ 1.2	13	78.0	21-22	48.0	15 16 3	1.65	+0.52	0.40	5 26				
New Westminster	49 13	122 54	330	66.6	+ 4.1	26	88.7	19	41.1	3 20 3	1.68	+0.37	0.72	7 24				
North Newmen	49 12	122 2	69	61.8	+ 0.2	21	91.0	19-22	46.0	16 21 0	3.52	+1.58	1.52	12 19				
Pemberton Hatchery	50 20	122 33		62.8		3	96.0	24-21	38.0	3 28 5	1.66		0.61	8 23				
Pemberton Meadows				61.9		4	96.0	20	43.0	3 31 2	1.35		0.77	7 24				
Rockin (Stave Falls)	49 16	122 23	125	64.6		4	91.5	21	44.0	3 22 2	3.22		0.71	14 17				
Steveston (Garry Point)	49 21	123 17		60.8	+ 2.5	18	75.0	22	43.0	3 15 0	1.36	+0.42	0.17	8 23				
Vancouver	49 17	123 5	136	62.9	- 0.1	13	82.9	23	44.4	3 17 9	2.02	+0.67	0.60	10 21				
Upper Fraser River																		
Babine Lake	55 38	126 26		51.9	- 3.1	25	79.0	19-20	32.0	3-8	24.8	2.15	-0.87	0.40	14 17			
Barkerville	51 40	123 0	4180	55.1	- 3.5	10	86.0	20	31.0	3 28 2	2.03	+0.65	0.49	9 21				
Chilcoot (Big Creek)	51 40	123 0	3100	57.5		1	90.0	23-24	30.0	26 33.0	1.02		0.20	9 22				
Fort George																		
Fort St. James (Stamits Lake)	54 28	124 12	2280															
Hydraulic				58.9		1	92.0	23-24	35.0	3 30 4	2.41		0.99	12 19				
Quenelle	52 59	122 30	1700	58.8	- 2.4	18	92.0	24	39.0	3 26 8	3.47	+1.97	1.23	8 23				
Okanagan Valley																		
Duck Lake	50 3	119 20	1400	66.2		1	98.0	29	39.0	2 25 6	0.59		0.28	6 25				
Hedley	49 35	120 10	1771	66.8		2	91.0	20	40.0	2 28 1	1.82		0.15	5 26				
Hedley (Nickel Plate)				51.3		4	94.0	21	29.0	13 26 4	0.31		0.20	4 27				
Keremeos				61.8		1	94.0	20	41.0	3-4	32.2	0.39	0.06	6 25				
Kelowna (Okanagan Mission)	49 15	119 29	1200	64.9	- 1.6	15	91.0	20-23	39.0	3 27 4	0.55	-0.51	0.24	4 27				
Penticton	49 29	119 35	65.5		7	92.0	21	39.0	33 27 0	0.54		0.18	12 19					
Princeton	49 29	120 29	1650	61.6	- 1.3	16	97.0	21	33.0	3 34 7	0.38	-0.72	0.17	5 26				
Richlands	49 36	119 40	1100	59.8		1	93.0	21	36.0	8 32 2	2.14		0.82	7 24				
Sumnerland	49 36	119 40	1100	60.8		1	94.0	23	42.0	2-4 24 4	0.36		0.10	5 26				
Vernon (Coldstream Ranch)	50 14	119 15	1582	64.5	- 1.8	20	93.0	20	39.0	3 26.5	1.26	-0.04	0.38	9 22				
West Kootenay																		
Crawford Bay	49 45	116 45	2000	63.0		2	90.0	19-20	40.0	2 27 5	0.60		0.18	6 25				
Creston				62.3		1	89.0	21	41.0	2 27 1	1.92		0.42	8 23				
Grand Forks	49 2	118 27		65.5		3	97.0	20-24	40.0	13 32 8	0.92		0.37	7 24				
Hawser	49 5	118 49		61.8		4	94.0	20	41.0	3 27 5	2.44	+0.48	0.55	11 20				
Hawser				64.4		1	92.0	19-24	46.0	13-15	23.2	1.54		0.47	12 19			
Kaslo	49 32	117 0	1752	60.2		2	84.0	18-19	37.0	17 21 1	2.20		1.47	5 26				
Nakusp				62.1		1	90.0	24	39.0	3 27 2	1.55		0.41	10 21				
Nelson	49 29	117 21	1760	64.6	- 2.0	1	94.0	20	41.0	3 27 5	2.44	+0.48	0.55	11 20				
Perry Siding	49 6	117 48	3400	64.2		1	92.0	19-22	42.0	12 29 8	1.11		0.44	10 21				
Rowland				61.2		9	84.0	19-21	38.5	13 21 6	1.24		0.39	10 21				
Waneta			1358	62.3		1	92.0	22-25	39.0	13 30 4	3.58		0.98	11 20				
East Kootenay																		
Cranbrook	49 30	115 50		61.2		5	92.0	25	33.0	16 31.5	1.26		0.41	9 22				
Eiko (Fruitlands)	49 1	115 5	2684	64.3	- 0.9	15	94.0	21	40.0	30 25.6	2.11	+0.56	0.79	10 21				
Invermere	50 30	116 2	2650	61.3		4	93.0	20										
Wilmer	50 34	116 14		61.3		4	90.0	21	41.0	15-17	23.4	2.24		1.07	6 25			
Thompson River																		
Armstrong				62.3		1	91.0	21	33.0	3 29.0	1.77		0.69	11 20				
Ashcroft	50 32	119 7	1160	72.8		1	102.0	21	36.0	14-16	22.7	0.79		0.38	8 23			
Enderby				64.1	- 1.4	20	95.0	24	36.0	2 28 7	1.18	-0.08	0.48	10 21				
Harper's Ranch	50 41	120 29	1245	63.4		1	95.0	20	38.0	2 26 4	1.72		0.74	6 25				
Kamloops	50 9	120 39	2120	67.4	- 2.3	20	98.8	21	42.8	3 24.8	0.96	-0.30	0.28	10 21				
Monte Creek				66.0		2	90.0	20	41.0	2 37.5	2.23		1.10	7 24				
Nicola Lake				61.8	- 0.3	18	91.0	22	37.0	3 24 4	0.85	-0.11	0.25	5 26				
Salmon Arm	50 42	119 35	1152	63.8		8	92.0	21-24	36.0	3 27 2	1.92		0.37	12 19				
Salmon Arm (Exp. Farm)				63.9		3	92.0	20-24	38.0	2 26 8	1.83		0.44	10 21				
Tappen				65.8		1	101.0	21	38.0	3 32.0	1.95		0.45	11 20				
Tranquille	50 41	120 29		67.0		5	90.0	21	41.0	3 27.3	0.81		0.26	11 20				
North Columbia River																		
Fanquier				63.6		1	93.0	20	42.0	2-15	34.1	1.40		0.32	8 23			
Glasier	51 14	117 29	4072	84.3	- 2.7	12	83.0	22	42.0	13-16	22.7	4.06	+1.65	0.83	15 16			
Golden	51 0	118 6	1476	60.3	- 1.0	12	91.0	19	36.0	6 29.6	2.05	+0.68	0.73	3 28				
Revelstoke	51 16	115 55	2550	64.3	+ 0.4	13	96.0	20	39.0	2 29.0	3.05	+0.46	1.15	7 24				





## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1913.

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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.				Days with 40 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.				
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Harvest fall in month.									
SASKATCHEWAN—																							
Qu'Appelle River																							
Broadview	50 21	102 33	1960	61.7	— 0.5	21	90.0	25	37.0	27	25.4	2.26	— 0.69	0.54	8	23	..	..					
Brownhill (Greenfield P.O.)	50 23	102 33	1957	61.7	— 0.5	21	90.0	25	37.0	27	25.4	2.26	— 0.69	0.54	8	23	..	..					
Brownlee	50 45	106 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
Buchanan	50 59	102 25	1658	59.4	— 1.1	1	96.6	28	..	27	20.9	3.47	—	0.56	13	18	..	8					
Crescent Lake	50 59	102 25	1658	59.4	— 1.1	1	96.6	28	..	27	20.9	3.47	—	0.56	13	18	..	8					
Estevan	49 12	103 4	1858	63.8	— 0.9	10	89.0	29	41.0	26	25.7	0.90	— 0.68	0.50	6	25	..	..					
Fort Qu'Appelle	51 5	103 24	..	61.7	— 1.2	2	88.1	20	36.8	27	27.0	3.21	—	0.50	12	19	..	3					
Hubbard (Drumague)	51 5	103 24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
Humboldt	52 12	105 9	..	56.6	— 4	84.0	21-26	33.0	1	28.4	..	3.55	—	3.00	6	25	..	..					
Imperial	51 22	105 23	..	60.9	— 1.2	2	83.0	24-25	40.0	13	25.2	3.85	—	1.48	7	24	..	..					
Indine Head	50 28	103 40	1924	61.1	— 3.5	23	84.0	25	38.0	26	22.1	4.13	+ 1.67	2.30	8	23	..	..					
Kamsuck	50 28	103 40	1924	61.1	— 3.5	23	84.0	25	38.0	26	22.1	4.13	+ 1.67	2.30	8	23	..	..					
Manor	49 43	102 2	2094	63.6	— 0.2	18	90.5	25	36.0	26	29.3	2.93	+ 0.30	1.01	7	24	..	..					
Moose Jaw	50 21	105 35	1759	61.5	— 1.2	12	83.0	8	41.0	13	24.4	3.86	—	1.51	11	20	..	..					
Mooseman	50 0	101 37	1884	61.5	— 1.2	12	83.0	8	41.0	13	24.4	3.86	—	1.51	11	20	..	..					
Moosester (St. Peter's Mon.)	52 0	105 0	1870	59.6	— 3.0	15	87.0	25	37.0	27	23.4	2.55	— 1.05	0.83	8	23	..	1					
Pilger	52 23	105 9	..	59.6	— 3.0	15	87.0	25	37.0	27	23.4	2.55	— 1.05	0.83	8	23	..	1					
Pense (Gatesgate)	50 20	105 0	1879	60.8	— 3.0	15	87.0	25	37.0	26	24.9	2.55	— 1.05	0.83	8	23	..	1					
Qu'Appelle	50 30	103 4	2115	60.9	— 3.0	15	87.0	25	37.0	27	23.4	2.55	— 1.05	0.83	8	23	..	1					
Quill Lake	52 4	104 14	1600	61.1	— 3.6	29	86.0	25	36.0	27	26.3	2.82	+ 1.85	0.82	9	22	..	..					
Regina	50 27	104 37	1885	59.2	— 1.1	1	89.0	20	36.6	28	29.9	2.01	—	0.73	5	26	..	..					
Strongfield	51 5	104 57	..	61.0	— 6	85.0	20	39.0	..	26	25.1	..	..	..	..	..	..	..					
Strasbourg	50 39	102 4	..	61.3	— 5	83.0	21-29	41.0	..	28	22.7	9.01	—	2.32	13	18	..	..					
Varbo (Fairfield)	51 11	102 29	..	61.7	— 4.4	28	89.0	25	37.0	27	25.5	2.25	— 0.00	1.23	7	24	..	1					
Yellow Grass	49 49	104 9	..	61.1	— 5	83.0	21-29	41.0	..	28	22.7	9.01	—	2.32	13	18	..	..					
Yorkton	51 11	102 29	..	61.7	— 4.4	28	89.0	25	37.0	27	25.5	2.25	— 0.00	1.23	7	24	..	1					
S. Saskatchewan River																							
Chaplin	49 21	108 49	2202	58.9	— 4	85.0	20	33.0	..	27	30.8	2.59	—	1.11	5	26	..	..					
East End (Divide)	51 46	105 10	..	60.6	— 1	88.0	29	30.0	..	15	25.1	2.05	—	0.80	8	23	..	2					
Kalvinhurst (Nashlyn)	50 20	107 45	..	59.9	— 3	91.5	26	31.0	..	27	31.3	1.49	—	1.00	6	25	..	4					
Kinderley	49 21	108 29	..	60.0	— 4	89.0	21	37.5	..	27	24.3	2.61	—	1.26	9	22	..	4					
Larchmont (Glenbryan)	49 54	107 27	..	63.1	— 2.6	27	93.0	25	38.0	27	29.8	2.10	— 0.41	0.64	7	24	..	6					
Oliver	51 20	108 57	..	60.0	— 1	88.0	29	30.0	..	15	25.1	2.05	—	0.80	8	23	..	2					
Rathnullen	51 20	108 57	..	60.0	— 1	88.0	29	30.0	..	15	25.1	2.05	—	0.80	8	23	..	2					
Swift Current	50 29	107 45	2439	63.1	— 2.6	27	93.0	25	38.0	27	29.8	2.10	— 0.41	0.64	7	24	..	6					
N. Saskatchewan River																							
Battleford	52 41	108 20	1620	62.6	— 1.4	23	88.0	20	45.0	1-30	22.9	3.56	+ 1.45	0.97	10	21	..	..					
Lloydminster	53 18	102 4	..	60.2	— 1	88.0	20	36.0	..	27	25.8	3.64	—	1.20	7	24	..	5					
Yellow Grass	49 49	104 9	..	61.1	— 5	83.0	21-29	41.0	..	28	22.7	9.01	—	2.32	13	18	..	..					
Oliver	53 52	109 59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
Onion Lake	51 0	108 20	1700	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
Prince (Meota)	51 0	108 20	1700	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
St. Walburg	51 59	109 30	..	59.8	— 3	87.4	20	36.7	..	27	30.6	2.98	—	0.95	10	21	..	..					
Scott (Ex. Farm)	51 59	109 30	..	59.8	— 3	87.4	20	36.7	..	27	30.6	2.98	—	0.95	10	21	..	..					
Waseca	53 6	109 29	..	59.3	— 6	86.0	20	37.0	..	27	23.3	2.67	—	1.04	5	26	..	2					
The Saskatchewan Forks																							
Chapone (Star City)	52 32	104 13	..	60.4	— 6	85.5	20	20.0	..	5	21.9	3.98	—	0.95	15	16	..	1					
Duck Lake	52 47	104 30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
Melfort	52 47	104 30	..	59.4	— 3	84.1	21-29	39.5	..	27	21.5	3.80	—	1.26	9	22	..	8					
Prince Albert	53 10	106 0	1432	61.7	— 1.2	14	87.0	29	41.0	13	22.4	2.14	— 0.40	0.78	6	25	..	..					
Rosthern	52 40	106 20	1657	61.7	— 1.2	14	87.0	29	41.0	13	22.4	2.14	— 0.40	0.78	6	25	..	..					
Saskatoon	52 15	106 30	1571	61.7	— 1.2	14	87.0	29	41.0	13	22.4	2.14	— 0.40	0.78	6	25	..	..					
Lower Saskatchewan River																							
Cumberland House	53 56	102 16	..	59.4	— 2	79.0	29	40.0	..	27	20.5	5.36	—	1.18	14	17	..	4					
Lost River	53 17	104 21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
MANITOBA—																							
Qu'Appelle and Assini-																							
boine Rivers																							
Avenue (St. Albans)	49 42	99 35	1180	64.4	+ 1.2	28	100.0	29	40.5	21	27.9	2.26	— 0.73	1.00	16	15	1	1					
Boissevain	50 25	101 1	1703	62.1	— 2.1	47	95.3	29	41.0	20-31	26.8	1.70	— 0.63	0.54	13	18	..	..					
Brandon	49 51	99 57	1176	62.1	— 2.1	47	95.3	29	41.0	20-31	26.8	1.70	— 0.63	0.54	13	18	..	..					
Carberry	49 52	99 20	1258	61.1	— 2.9	30	89.0	29	42.0	15-24	23.6	3.87	+ 1.20	0.43	10	21	..	5					
Carman	49 31	98 0	872	61.8	— 3.1	27	89.0	29	42.0	24-31	29.7	1.52	— 1.20	0.43	10	21	..	5					
Cypress River	49 33	99 3	1252	61.8	— 3.1	27	89.0	29	42.0	24-31	29.7	1.52	— 1.20	0.43	10	21	..	5					
Hillview	49 55	100 33	1400	60.8	— 2.9	30	89.0	29	42.0	15-24	23.6	3.87	+ 1.20	0.43	10	21	..	5					
Minnedosa	50 15	99 50	1699	63.8	— 2	93.0	29	44.0	..	27	27.6	1.93	—	0.69	7	24	..	..					
Ninette	49 14	99 51	1649	62.8	— 3	94.0	29	45.0	..	23-26	21.9	1.49	—	0.45	7	24	..	..					
Pierson	49 14	101 5	1531	61.1	— 8	87.0	30	35.0	..	9	32.6	..	..	..	..	..	..	..					
Pipestone	49 34	100 58	1400	64.2	+ 0.1	25	90.0	30	45.0	9	21.5	2.19	— 0.63	0.92	7	24	..	..					
Portage la Prairie	49 57	98 17	..	64.4	— 6	88.5	30	47.0	9	21.2	2.54	..	..	..	..	..	..	..					
Portage la Prairie (2)	49 56	98 17	..	60.8	— 1.6	20	83.0	30	40.0	27	17.6	1.10	+ 2.20	0.73	12	19	..	..					
Russell	50 56	101 20	..	63.3	— 0.7	17	93.0	29	44.0	27	21.6	1.59	—	0.67	11	20	..	2					
Souris	49 51	100 55	1444	61.5	— 2.5	12	90.0	29	40.0	4	23.5	1.36	—	1.00	14	27	..	..					
Treherne	49 36	98 40	1212	63.3	— 0.7	17	93.0	29	44.0	27	21.6	1.59	—	0.67	11	20	..	2					
Verden	49 51	100 55	1444	61.5	— 2.5	12	90.0	29	40.0	4	23.5	1.36	—	1.00	14	27	..	..					
The Red River																							
Almasippi	49 14	99 20	..	62.8	— 2.3	18	91.0	29	38.0	2	26.4	2.50	+ 0.56	0.66	12	19	..	7					
Morden	49 11	98 6	978	62.8	— 2.3	18	91.0	30	44.0	24-25	22.6	1.01	—	0.44	9	22	..	5					
St. Mary	49 07	96 42	800	61.0	— 2	18	84.5	29	41.0	24	22.2	1.48	—	0.72	8	23	..	2					
Oak Bank	49 07	96 42	800	61.0	— 2	18	84.5	29	41.0	24	22.2	1.48	—	0.72	8	23	..	2					
Winnipeg	49 53	97 7	760	64.4	— 1.5	33	88.0	26-31	40.0	2-8	29.6	2.80	— 0.06	1.50	3	28	..	4					
	49 53	97 7	760	64.4	— 1.5	33	88.0	26-31	40.0	2-8	29.6	2.80	— 0.06	1.50	3	28	..	4					

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.								
				Mean.	Difference from average	No. observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average	Heaviest fall in month	Days with .01 or more.	No. of hot days.	No. of auroras.	No. of thunderstorms	No. of fogs
<b>MANITOBA—Continued</b>																			
<i>Dauphin Lake and River</i>	°	'	"																
Berens River.....	52 18	57 23	716																
Dauphin.....	51 8	100 2	937	63.4	—	3	87 0	29	44 0	26	2 7	4 11	—	1 40	8	23	..	..	
Moose Horn Bay (Atkinsville)	51 13	99 33		—	—	4	81 1	39	49 1	20	—	—	—	—	—	—	2	..	
<i>Lake Winnipegosis</i>																			
Le Pas.....	52 6	100 13	1112	63 0	—	4	83 0	29 30	41 0	4 1 3	2 42	—	0 60	12	19	..	5	..	
<b>ONTARIO—</b>																			
<i>The Lake Superior Districts</i>																			
<i>Rainy River</i>																			
Fort Frances.....	49 48	9 32	1102																
Kenora.....				63 7	—	1	84 5	30	47 2	24 18 1	2 58	—	1 01	8	23	..	6	..	
Shoal Lake.....																			
<i>Thunder Bay</i>																			
Kakabeka Falls.....	48 29	83 26	912	59.2	—	5	83 0	17	36 0	10 26 2	5 55	—	2 21	9	22	..	5	..	
Port Arthur.....	48 27	80 12	644	60 9	—	1 1	83 2	8	42 0	6 2 6	6 26	+2 43	1 41	34	12	..	9	..	
Schreiber.....	48 50	87 15	633	57 6	—	3 7	79 2	6	39 5	10 25 9	2 68	—	0 57	13	17	..	7	..	
<i>Algoma</i>																			
Bruce Mines.....	46 18	83 55	595	63 0	—	2 6	85 0	3-27	42 0	11 25 22 9	4 44	+0 05	1 58	11	20	..	5	..	
Copper Cliff.....	46 30	80 39		66 0	—	2	85 0	31	43 0	10 22 2	2 34	—	1 41	10	21	..	1	..	
Porcupine.....	45 15	75 14		61 9	—	2	85 0	28	36 0	11 24 4	3 31	—	0 62	14	17	..	1	..	
Providence Bay.....	48 35	85 16	1252	61 3	—	3	82 0	28	40 5	25 19 4	2 95	—	0 76	8	23	..	1	..	
Timmins (Sandy Falls).....																			
White River.....				57.4	—	3 0	79 3	3	29 0	10-21 29 5	2 40	-0 67	0 36	13	18	..	5	..	
<i>Nipissing</i>																			
Cochran.....	49 2	81 0	646	61 1	—	2	87 0	1	37 0	8-25 21 4	2 85	—	0 70	16	15	..	4	..	
Haleybury.....	47 29	79 39	657	65 2	—	1 0	88 2	1	43 0	5-21 21 4	5 97	+0 67	0 57	12	19	..	5	..	
Iroquoia Falls.....				61 3	—	1	84 1	27-28	33 2	11 26 3	4 53	—	0 69	16	15	..	1	..	
Montreal River.....	47 8	79 29		60 8	—	3	89 0	1	24 0	11 35 0	3 71	—	—	11	20	..	5	..	
<i>Upper Ottawa River</i>																			
St. Lawrence & Lake Talon.....	46 15	74 48		65 5	-0 1	19	93 0	30	38 9	9 26 0	1 73	-1 58	0 56	11	20	..	10	..	
Stoneliff (Rockliffe).....	46 9	78 6	657	65															

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE					PRECIPITATION											
				Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs	
ONTARIO—Continued—																				
West-Central Counties																				
Alton.....	43 51	80 5	1250	69.8	+ 0.5	25	95.0	31	43.0	10 28.2	2.73	+0.35	0.54	7	24	...	...	...	...	
Brantford.....	43 10	80 21	750	67.3	+ 0.8	16	96.0	31	40.0	11 28.8	1.51	+1.55	0.56	6	25	...	...	...	3	
Elora.....	43 41	80 24	1274	67.9	+ 0.1	27	91.0	3	43.0	11 23.9	3.26	+0.69	1.33	7	24	...	...	...	...	
Guelph.....	43 33	80 16	1050	66.5	—	11	90.0	+ 31	40.0	10 23.7	1.28	+1.66	0.49	4	27	...	...	...	...	
Listowel.....	42 59	81 13	808	69.2	+ 0.6	29	94.0	4	40.0	6 26.3	3.60	+1.16	1.19	9	22	...	...	...	5	
London.....	43 12	80 25	840	69.6	+ 0.2	24	96.0	31	43.0	25 25.8	3.17	+0.71	1.40	8	23	...	...	...	3	
Paris.....	43 23	81 0	1191	68.1	—	0.4	30	90.5	4	42.5	11 23.8	1.90	+1.54	0.48	8	24	...	...	...	4
Sh. Bourne.....	43 8	80 17	980	69.2	—	0.2	17	94.0	1	45.0	11 24.0	3.11	+0.58	1.24	5	26	...	...	...	...
Stafford.....	43 37	79 24	890	66.6	—	6	99.7	4	41.5	10 25.5	2.89	+0.32	1.45	4	27	...	...	...	6	
Woodstock.....	43 16	79 51	303	67.9	+ 0.8	16	96.0	31	40.0	11 28.8	1.51	+1.55	0.56	6	25	...	...	...	4	
Lake Ontario Counties																				
Aqueduct.....	43 47	79 16	590	69.2	+ 0.2	17	94.0	1	45.0	11 24.0	3.11	+0.58	1.24	5	26	...	...	...	...	
Aurora.....	43 57	79 24	880	66.6	—	6	99.7	4	41.5	10 25.5	2.89	+0.32	1.45	4	27	...	...	...	6	
Hamilton.....	43 16	79 51	303	67.9	+ 0.8	16	96.0	31	40.0	11 28.8	1.51	+1.55	0.56	6	25	...	...	...	4	
Oshawa.....	43 53	78 52	331	70.2	+ 1.1	72	94.8	1	49.8	26 22.6	2.67	+0.26	1.05	7	24	...	...	...	...	
Toronto.....	43 40	79 24	350	65.7	—	9	90.0	1	45.0	11 23.5	2.81	—	1.14	6	25	...	...	...	...	
Toronto Is. (Lakeside Home)	44 5	79 24	350	65.7	—	9	90.0	1	45.0	11 23.5	2.81	—	1.14	6	25	...	...	...	...	
Uxbridge.....	44 5	79 8	856	67.1	—	2	88.0	1	45.0	11 20.6	3.08	—	1.35	6	25	...	...	...	...	
Wexford.....	43 41	79 17	555	66.3	—	2	88.0	1	45.0	11 20.6	3.08	—	1.35	6	25	...	...	...	4	
East-Central Counties																				
Bancroft.....	45 1	77 50	64.4	+ 0.0	22	94.0	4	37.0	10 29.0	1.10	+2.10	1.10	1	30	...	...	...	...		
Haldimont.....	45 1	8 28	1050	66.4	+ 0.8	26	94.0	31	35.0	20 30.2	1.27	+1.90	0.30	9	22	...	...	...	4	
Kilmont.....	44 45	38 38	920	64.8	+ 0.7	14	93.0	4	35.0	10 28.6	1.57	+2.32	0.95	8	23	...	...	...	...	
Lakefield.....	44 25	78 15	850	68.3	+ 1.1	34	95.0	4	43.3	26 26.4	3.46	+0.96	1.39	11	20	...	...	...	7	
Lindsay.....	44 20	78 15	872	68.3	+ 1.1	34	95.0	4	43.3	26 26.4	3.46	+0.96	1.39	11	20	...	...	...	...	
Maynoe.....	44 30	77 29	575	69.5	—	9	95.0	4	44.0	26 25.8	1.34	—	0.47	8	23	...	...	...	8	
Norwood.....	44 17	78 19	722	67.6	—	4	93.0	4	38.5	33 26.7	2.16	—	0.66	7	24	...	...	...	3	
Peterboro.....	44 5	79 8	856	67.1	—	2	88.0	1	45.0	11 20.6	3.08	—	1.35	6	25	...	...	...	...	
Uxbridge.....	44 5	79 8	856	67.1	—	2	88.0	1	45.0	11 20.6	3.08	—	1.35	6	25	...	...	...	...	
QUEBEC—																				
Middle St. Lawrence																				
Brome.....	45 10	72 34	678	65.6	+ 0.1	33	89.0	1-4	43.0	12 19.5	3.98	+0.25	0.75	12	19	...	...	...	6	
Cap Rouge.....	45 46	71 18	132	65.2	—	3	88.0	2	45.2	9 19.7	5.36	—	1.22	15	16	...	...	...	6	
Cedar Rapids.....	45 55	71 21	132	68.0	—	1	94.0	2	28.0	8 24.4	1.87	—	0.60	9	22	...	...	...	1	
D'Amboise.....	45 55	71 21	896	68.0	—	1	94.0	2	28.0	8 24.4	1.87	—	0.60	9	22	...	...	...	...	
Montreal.....	45 30	73 35	187	69.5	+ 0.5	39	93.2	1	51.0	11 17.2	2.42	+1.54	0.63	12	19	...	...	...	6	
Quebec.....	46 48	71 13	296	66.2	+ 0.1	39	90.0	1	47.5	11 20.0	6.05	+1.62	1.42	18	13	...	...	...	8	
St. Anne de Bellevue	45 27	73 59	70.7	—	7	95.3	1	49.3	8 24.1	0.74	—	0.36	3	28	...	...	...	0		
Shawinigan Falls	46 34	72 43	620	66.1	+ 0.8	11	91.1	1	46.0	12 20.9	3.28	+0.42	1.25	15	16	...	...	...	9	
Sherbrooke.....	45 32	72 5	620	66.1	+ 0.8	11	91.1	1	46.0	12 20.9	3.28	+0.42	1.25	15	16	...	...	...	9	
Lower St. Lawrence & Gulf																				
*Anticosti E. Pt.	49 6	61 42	30	52.9	+ 2.0	31	72.0	5	47.0	1-14	3.74	—	0.83	8	23	...	...	...	16	
*Anticosti S.W. Pt.	49 32	64 32	30	54.4	+ 2.1	32	70.5	16	37.0	1 23.4	2.22	+1.03	0.72	14	17	...	...	...	2	
*Anticosti W. Pt.	49 52	64 32	30	56.2	+ 2.1	31	74.0	23	47.0	1	2.13	+1.22	0.57	7	24	...	...	...	5	
*Bequet.....	48 25	68 53	30	62.8	+ 2.8	31	82.0	23	51.0	1	2.25	+0.76	0.60	7	24	...	...	...	7	
*Cape Chatte.....	49 6	61 45	45	57.9	+ 2.2	32	70.0	4-24	50.0	1 20	2.43	+0.45	1.80	20	12	...	...	...	12	
*Cape Magdalen.....	49 16	65 20	43	57.7	+ 2.1	31	71.0	10	48.0	1	3.03	+0.06	0.60	15	16	...	...	...	1	
Father Point.....	48 31	68 19	29	58.1	+ 0.2	36	75.0	28	43.0	16 15.6	4.35	+1.51	1.00	15	16	...	...	...	8	
Ste Anne de la Pocatiere.....	47 22	70 2	65	62.4	—	3	82.2	4	44.0	30 21.4	3.64	—	0.89	13	18	...	...	...	3	
Lake St. John																				
Chicoutimi.....	48 25	71 5	150	63.5	+ 0.9	28	90.2	1	43.8	3 19.7	6.28	—	1.36	22	9	...	...	...	4	
Chicoutimi (2).....	48 4	72 22	59	64.0	—	3	83.0	4-5	42.0	31 17.5	4.09	—	1.01	11	20	...	...	...	7	
Lake Edward.....	47 39	72 15	133	60.4	—	1	84.8	1	35.2	8 23.4	4.09	—	1.01	11	20	...	...	...	7	
La Tuque.....	47 27	72 48	520	61.1	—	2	88.0	2	41.0	3 20.4	5.94	—	0.98	21	10	...	...	...	1	
Mistassini.....	48 51	72 15	360	61.1	—	2	88.0	2	41.0	3 20.4	5.94	—	0.98	21	10	...	...	...	1	
*Roberval.....	49 31	72 13	352	61.1	—	2	88.0	2	41.0	3 20.4	5.94	—	0.98	21	10	...	...	...	1	
The Northwestern Districts																				
Abitibi.....	48 33	73 22	...	62.0	+ 2.1	18	83.0	5	40.0	6 18.0	3.30	—	0.65	14	17	...	...	...	2	
Amos.....	47 54	73 60	...	58.8	—	1	81.2	1	34.2	11 25.4	4.30	—	0.90	15	16	...	...	...	...	
Manouan Crossing.....	47 54	73 60	...	61.6	—	2	85.0	4	32.0	12 27.6	2.28	—	0.86	9	22	...	...	...	...	
Teniskaming.....	48 12	75 43	...	58.6	—	2	87.0	1	28.0	8-12 25.2	3.26	—	0.57	18	13	...	...	...	1	
Weymont-laingue (Dnm A)	48 12	75 43	...	58.6	—	2	87.0	1	28.0	8-12 25.2	3.26	—	0.57	18	13	...	...	...	...	
White Shore Lake.....	48 12	75 43	...	58.6	—	2	87.0	1	28.0	8-12 25.2	3.26	—	0.57	18	13	...	...	...	3	
The North Shore																				
Clark's City.....	50 10	66 25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
New Brunswick—																				
Chatham.....	47 3	65 20	21	65.0	+ 0.8	39	92.0	4	50.0	1-31 20.5	3.49	+0.23	0.66	21	10	...	...	...	...	
Dieppe.....	45 4	66 22	39	62.6	+ 0.1	33	82.0	5-23	43.0	1 17.2	9.33	—	0.80	9	22	...	...	...	...	
Dalhousie.....	45 57	66 36	161	65.7	+ 0.3	39	90.6	4	47.0	17-31 20.9	5.11	+1.49	1.79	14	17	...	...	...	6	
Friederickton.....	45 57	66 36	161	65.7	+ 0.3	39	90.6	4	47.0	17-31 20.9	5.11	+1.49	1.79	14	17	...	...	...	...	
Grand Falls.....	46 0	64 45	50	57.1	+ 0.6	35	70.0	30	59.0	12	4.60	+0.64	1.31	6	25	...	...	...	15	
Moncton.....	45 17	66 28	30	61.0	+ 0.3	40	80.0	30	52.3	1 12.1	3.55	+0.65	0.67	13	18	...	...	...	4	
*Point Lepreau.....	45 4	66 28	30	57.1	+ 0.6	35	70.0	30	59.0	12	4.60	+0.64	1.31	6	25	...	...	...	...	
St. John.....	45 17	66 4	70	61.0	+ 0.3	40	80.0	30	52.3	1 12.1	3.55	+0.65	0.67	13	18	...	...	...	...	
St. Stephen.....	45 11	67 35	35	60.4	+ 0.7	16	88.0	5	43.0	16 23.6	4.76	+1.98	1.60	8	23	...	...	...	3	
St. Mary.....	45 11	67 38	66	62.8	—	1	89.0	5	40.0	30 21.7	3.89	—	0.85	12	19	...	...	...	...	
Williamsburg.....	45 11	67 38	66	62.8	—	1	89.0	5	40.0	30 21.7	3.89	—	0.85	12	19	...	...	...	...	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1913.

\* Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION				
				Mean	Difference from average.	Yr's Observations	Highest	Lowest	Date	Mean daily range	Amount.	Difference from average	Heaviest fall in month	Days with .01 or more
														No. of fair days
														No. of Auroras
														No. of thunderstorms
														No. of fogs
NOVA SCOTIA—														
Advocate .....	45 28	61 59	59	62.5	—	3	87.6	5	36.0	4	21.6	—	—	—
Antigonish .....	44 39	62 56	83	64.8	—	39	89.9	4	47.2	9	22.1	4.88	+0.52	1 21
Halifax .....	45 3	—	40	61.6	—	2	86.0	4	42.0	17	32.0	3.73	—	1 66
Kentville .....	—	—	—	62.6	—	1	90.0	6	38.0	12	26.1	5.58	—	2 50
Kentville (2) .....	—	—	—	65.3	—	2	91.0	2	41.0	4	27.0	8.19	—	3 24
Leverpool .....	—	—	—	—	—	—	—	—	—	—	—	—	—	0 22
Merigonish .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New Germany .....	45 23	61 19	49	—	—	—	—	—	—	—	—	—	—	—
Parraboro' .....	45 39	61 22	45	—	—	—	—	—	—	—	—	—	—	—
Port Hastings .....	43 58	59 48	23	—	—	—	—	—	—	—	—	—	—	—
Sable Island, E. Pt.	43 57	69 6	23	57.2	—	20	81.5	29	47.0	1-18	9.8	2.08	—	1 13
Sable Island (Main Station)	46 10	69 10	15	62.9	—	7	40 81.5	4	35.5	1	19.3	2.70	-0.47	0 88
Sydney .....	45 22	63 18	17	63.9	+ 0.0	49	86.7	2	49.3	17	22.8	9.88	—	5 32
Truro .....	—	—	—	63.6	—	1	85.0	2	41.5	17	21.9	2.12	—	0 67
Truro (2) .....	45 15	61 8	20	—	—	—	—	—	—	—	—	—	—	—
Whitehead .....	44 59	64 6	50	65.7	+ 0.3	11	87.0	5	43.0	17	19.8	4.03	—	1 19
Windsor .....	45 7	64 20	65	61.2	+ 0.2	14	85.5	4	46.2	17	19.1	3.16	+0.83	0 76
Yarmouth .....	43 50	65 2	65	61.2	+ 0.3	33	76.2	25	46.1	17	14.2	3.85	-0.05	1 02
P. E. ISLAND—														
Charlottetown .....	46 14	63 10	38	64.5	- 1.2	38	83.0	29	47.0	1-17	16.1	4.18	+1.35	0 58
Charlottetown (Exp. Farm)	46 14	63 7	75	64.1	—	3	85.5	4	44.0	1 17	18.0	4.01	—	1 14
Hamilton .....	46 25	63 48	—	63.8	- 1.1	16	83.0	4	47.0	1-31	16.2	5.48	—	1 70
Summerside .....	—	—	—	66.3	+ 1.5	12	82.0	4	45.0	16	14.0	5.89	+2.48	1 67
NEWFOUNDLAND—														
Amour Point .....	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—
Burin .....	47 0	55 10	27	—	—	—	—	—	—	—	—	—	—	—
Cape Norman .....	51 38	55 52	—	—	—	—	—	—	—	—	—	—	—	—
Fogo .....	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—
Point Riche .....	50 42	55 25	35	51.2	- 0.8	29	68.0	11	43.0	5	—	4.03	+0.50	2 09
Port aux Basques .....	47 35	59 10	27	53.3	—	5	66.5	4-17	41.5	1-17	9.6	3.90	—	0 63
St. George's .....	47 34	62 42	125	56.4	- 2.5	41	81.0	8	40.0	1-19	15.7	5.72	+1.70	1 30
St. John's .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LABRADOR—														
*North West River .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BERMUDA—														
Prospect .....	32 17	61 46	151	76.2	- 2.2	22	85.6	26	65.0	1	12.5	2.22	-1.54	0.78

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, ETC., DURING JULY, 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days of or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....	1.89	9	22	0.45	12					
Annis (Canoe Point).....	2.03	12	19	0.66	13					
Armstrong.....										
Beaver Lake.....	0.84	4	27	0.36	9					
Comitlam.....	1.66	5	26	0.65	9					
Cariboo Road No 111.....										
Denman's Island.....	1.53	5	26	0.73	6					
Perguson.....	3.25	19	21	0.79	13					
Goldstream Lake.....	0.97	5	26	0.49	6					
Hydraulic.....	2.68	8	23	0.75	6					
Hornby Island.....	1.39	6	25	0.69	6					
Javermere.....	1.60	19	21	0.40	23					
Jordaa River.....	1.92	8	23	0.94	9					
Jordan River (Bear Creek).....	2.21	7	24	0.92	10					
Little Qualicum (Fr. Cr. & I.).....	1.52	5	26	0.75	6					
Lumby.....	1.71	9	22	0.55	1					
Nasas Harbour.....	5.99	15	16	1.10	30					
Rock Creek.....	0.37	4	27	0.13	12					
Shawigan Lake.....										
Wychffe.....										
ALBERTA—										
Bardo.....	2.45	8	23	0.57	24					
Bismark.....	1.95	6	25	0.43	16					
Braceberheim.....										
Bittern Lake.....	4.11	11	20	1.50	14					
Brooks.....	1.58	9	22	0.66	21					
Beaver Mines.....	1.94	6	25	0.97	29					
Coleman.....	1.91	6	25	0.77	29					
Cowley.....	1.88	11	20	0.60	26					
Caldwell.....										
Cheseshelm.....	0.96	3	28	0.45	19					
Clariada.....	0.74	5	26	0.29	22					
Dorealee (Bahaw).....	2.65	4	27	1.30	15					
Dunstable (Five Lakes).....	7.13	16	15	1.53	3					
Grassy Lake.....	1.50	2	29	1.00	15					
Jumping Pound.....										
Loch Sloy.....										
Lynden.....	3.53	7	24	0.65	29					
Lineham.....	2.51	3	28	1.94	12					
La Pearl.....	2.34	4	27	1.31	13					
Lethbridge.....	1.31	7	24	0.34	28					
Macleod.....	2.70	4	27	1.10	10					
Maycroft.....	2.13	10	21	0.55	29					
Mountain View.....	3.77	3	28	2.80	25					
Mannville (Roycroft Ranch).....	3.85	7	24	1.50	13					
Nateby.....	0.52	4	27	0.17	23					
Nanton.....	2.18	5	26	0.65	29					
Okotoks.....										
Pekisko.....	2.58	9	22	0.91	29					
Ponoka.....	3.26	7	24	1.80	14					
Seven Persons.....	0.70	2	29	0.38	22					
Tilley.....										
Writing-on-Stone (Coumts).....										
Waterton Mills.....	2.72	8	23	1.06	26					
SASKATCHEWAN—										
Battle Creek.....	2.62	6	25	0.94	22					
Gull Lake.....	1.45	6	25	0.51	4					
Gull Lake (Fks. Swift Cr.).....	2.65	5	26	0.98	11					
The Meadows (Battle Cr.).....	2.98	5	26	1.34	21					
Willow Creek (Maple Cr.).....										
Wapashoe.....										
MANITOBA—										
Carterright.....	1.87	11	29	0.77	10					
Deloraine.....										
Norquay (Swan Lake).....	1.21	8	23	0.79	11					
Rapid City.....	2.46	10	21	0.96	10					
Rose Bank.....										
ONTARIO—										
Brantford (Bow Park Farm).....	2.85	10	21	0.76	4					
Deer Park.....	2.27	7	24	1.01	4					
Dutton.....	3.80	4	27	1.50	5					
Emsdale.....	1.41	9	22	0.49	13					
Fort Frances.....										
Georgetown.....	3.62	7	24	2.07	4					
Graham.....	1.09	6	25	0.34	5					
Grand Valley.....	1.12	5	26	0.72	5					
Hillier.....										
MacCee.....	1.91	6	25	0.75	9					
Niagara Falls.....	1.25	9	22	0.28	2					
Nipigon.....	3.79	11	20	1.37	12					
Princeton.....	2.22	5	26	0.81	6					
Point Clark.....	1.60	4	27	0.60	4					
Renfrew.....										
Sydenham.....	3.80	6	25	0.90	20					
Strathroy.....	3.27	6	25	1.14	4					
Watford.....	2.84	7	24	0.86	16					
Westport.....	3.64	8	23	1.31	27					
Westminster.....	2.44	6	25	0.91	6					
Wooler.....										
Wesley.....										
Wattenwyl.....										
Warton.....	0.96	4	27	0.41	4					

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING JULY, 1913.

STATIONS	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days of or over	No. of Fair Days.	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
QUEBEC—										
Bark Lake (Riviere Desert)	3.15	11	20	0.60	20					
Kipawa Dam.....	2.75	9	22	0.90	12					
Lucerne.....										
Perkins Mills.....	1.14	6	25	0.35	9					
Quinze Dam.....	3.93	4	27	1.60	13					
Timiskaming.....										
NEW BRUNSWICK—										
Point Escumene.....	1.94	7	24	0.62	25					
NOVA SCOTIA—										
Big Mushamush Lake (Ma- hona).....										
Kentville.....	5.61	11	20	1.25	21					
Milton.....	3.93	5	26	1.87	6					
Mushamush River (Mahona)										
Nappan.....	4.98	11	20	1.50	6					
South Alton.....										
White Rock.....	3.86	11	20	1.25	19					



## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF JULY, 1913.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND			
				Mean reduced.	Highest.	Lowest.	Range.				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations	Mean miles per hour.	Maximum velocity.	Date and direction from.	
BRITISH COLUMBIA—																								
Atlin	50 35	133 38	2240	30.02	30.43	29.71	0.72	—	6	10	0	0	1	14	32	2	0	5	8	62	8.1	—	—	—
Barkerville	53 2	121 35	4180	30.01	30.37	29.69	0.68	75	5	6	0	0	0	0	1	16	5	1	39	62	—	—	3.2, 27	
Kamloops	50 42	120 29	1245	29.94	30.27	29.57	0.70	59	6	10	1	0	10	4	7	2	20	5	13	62	4.0	13	20 W	
Nanaimo	49 10	123 37	125	29.93	30.23	29.70	0.53	65	10	0	13	1	10	0	3	12	3	12	21	62	—	—	40 19NW	
Prince Rupert	54 15	130 18	170	30.02	30.35	29.64	0.69	81	22	0	0	4	6	15	1	0	0	36	62	—	—	—	—	
Triangle Island	50 52	129 5	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Traquille	50 41	120 29	—	28.67	29.02	28.30	0.72	60	4	3	1	2	1	1	3	2	13	2	37	62	—	—	—	
Vancouver	49 17	123 5	135	30.04	30.37	29.82	0.55	76	1	2	3	1	11	3	2	10	13	5	14	62	—	—	—	
Victoria	48 24	123 19	85	30.04	30.37	29.82	0.55	69	4	1	0	1	3	1	18	12	13	2	14	62	7.5	35	6 W	
YUKON—																								
Dawson	64 4	139 20	1200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
ALBERTA—																								
Banff	51 10	115 34	4542	29.96	30.39	29.60	0.79	61	3	0	0	5	1	1	1	25	10	0	19	62	—	—	—	
Calgary	51 2	114 2	3380	29.96	30.29	29.54	0.75	—	3	0	2	4	1	19	3	2	4	25	11	62	4.3	19	10NW	
Edmonton	53 33	113 30	2158	29.89	30.23	29.57	0.66	76	5	0	4	5	1	4	5	13	10	15	5	62	—	—	—	
Medicine Hat	50 1	110 37	2161	29.90	30.30	29.53	0.77	61	5	0	3	0	2	0	8	26	14	4	5	62	—	—	—	
SASKATCHEWAN—																								
Battleford	52 41	108 20	1620	29.88	30.26	29.70	0.76	62	3	4	0	0	0	0	8	8	12	25	62	8.8	—	—	—	
Moose Jaw	50 21	105 35	1750	29.86	30.33	29.20	0.97	69	3	1	9	5	4	3	0	15	17	13	27	93	—	—	—	
Prince Albert	53 10	108 0	1432	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Qu'Appelle	50 30	103 47	2115	29.89	30.24	29.31	0.95	76	4	1	2	4	2	14	8	16	13	2	62	—	—	—	—	
Swift Current	50 20	107 45	2439	29.90	30.27	29.15	0.82	65	4	3	1	0	1	19	8	12	19	1	62	—	—	—	—	
MANITOBA—																								
Assiniboia (St. Alban's)	49 42	99 33	1180	28.73	29.05	28.16	0.89	61	4	5	0	7	6	3	2	2	2	20	20	62	—	—	—	
Minnedosa	50 15	99 50	1690	29.92	30.31	29.30	1.01	80	5	10	3	7	8	3	7	11	17	4	1	62	10.6	—	—	
Le Pas	49 19	101 15	890	29.83	30.21	29.36	0.85	80	5	10	3	7	8	3	7	11	17	4	1	62	10.6	—	—	
Winnipeg	49 53	97 7	760	29.91	30.30	29.26	0.64	74	4	4	6	10	1	22	8	11	6	24	5	93	11.0	39	8W	
ONTARIO—																								
Cochrane	49 2	81 0	948	29.92	30.25	29.11	0.84	—	4	5	10	3	4	1	10	5	18	11	0	62	8.9	26	6W	
Guelph	43 33	80 16	650	—	—	—	—	—	—	—	1	7	0	1	0	27	2	49	0	87	9.4	—	—	
Halleybury	47 27	79 39	687	29.90	30.25	29.00	0.85	70	6	13	11	3	2	2	8	11	4	10	12	62	—	—	—	
Kingston	41 13	76 29	285	29.93	30.29	29.38	0.62	71	5	9	2	5	2	3	2	18	10	17	3	62	8.5	—	—	
London	42 59	81 14	808	29.97	30.24	29.50	0.68	84	4	0	0	16	0	37	6	19	3	18	0	93	—	—	—	
Lindsay	44 29	78 45	872	29.04	29.39	28.62	0.67	—	—	—	4	2	5	2	2	6	27	9	17	93	—	—	—	
Orillia	45 26	75 42	294	29.83	30.18	29.47	0.71	88	5	3	6	4	4	1	3	17	26	0	1	62	—	—	—	
Parry Sound	45 19	80 0	635	29.93	30.24	29.30	0.71	89	5	9	3	2	1	5	8	15	18	4	6	62	6.5	20	13SE	
Port Arthur	48 27	89 12	644	29.95	30.43	29.31	1.04	75	5	5	8	11	11	14	0	7	12	23	4	93	10.0	33	9 W	
Port Stanley	42 40	81 13	992	29.98	30.24	29.38	0.63	81	4	3	1	3	5	7	0	6	14	6	15	62	—	—	—	
Southampton	44 30	81 21	656	29.98	30.26	29.10	0.75	78	4	4	2	0	6	4	7	15	6	10	12	62	9.1	35	6 NW	
Stoney Creek	46 9	78 6	557	29.83	30.22	29.44	0.78	93	5	8	2	0	3	0	1	0	18	2	36	62	4.4	19	7W	
Toronto	43 40	79 24	330	29.95	30.24	29.10	0.63	62	3	0	8	2	3	1	2	8	18	11	2	62	10.4	35	13W	
White River	48 33	85 16	1235	29.91	30.37	29.33	1.04	—	—	—	6	4	8	2	3	11	9	13	2	93	—	—	—	
Woodstock	43 8	80 47	980	29.93	30.27	29.57	0.70	71	6	10	4	2	2	8	9	15	15	35	0	93	8.7	36	13NW	
QUEBEC—																								
Anticosti S.W. Pt.	—	—	—	29.82	30.19	29.44	0.75	93	6	8	9	3	2	44	7	0	3	16	9	93	11.7	34	19SE	
Father Point	48 31	68 19	20	29.82	30.25	29.11	0.84	—	—	—	7	13	1	9	3	0	41	0	7	62	6.2	10	1	
Montreal	45 30	73 35	137	29.87	30.20	29.46	0.74	58	5	4	2	2	7	3	13	31	22	10	9	93	13.2	30	1 NW	
Quebec	46 48	71 13	294	29.85	30.24	29.38	0.86	76	7	12	0	15	7	3	3	24	23	7	1	93	10.1	28	13 SW	
Sherbrooke	45 32	72 5	629	29.82	30.20	29.45	0.75	70	5	1	0	1	3	6	10	12	46	15	0	93	—	—	—	
NEW BRUNSWICK—																								
Chatham	47 3 45	29 21	21	29.87	30.25	29.48	0.77	82	7	12	4	4	9	3	1	17	20	3	1	62	—	—	—	
Fredericton	45 57	66 36	164	29.89	30.24	29.49	0.75	77	6	10	1	8	7	12	14	20	22	9	0	93	6.6	22	26SW	
St. John	45 17	66 4	70	29.90	30.23	29.50	0.73	82	6	5	3	4	3	24	27	22	5	2	4	93	9.3	31	29 SW	
NOVA SCOTIA—																								
Halifax	44 39	63 36	88	29.91	30.22	29.55	0.67	85	6	7	3	7	0	4	8	13	17	9	1	62	11.0	27	23W	
Sable Island (MStation)	43 57	60 6	25	30.07	30.42	29.77	0.65	—	—	—	7	12	6	6	18	20	24	11	0	93	7.8	20	26NW	
Sydney	46 10	60 10	—	29.91	30.23	29.53	0.72	75	7	12	7	10	8	3	6	8	38	19	3	93	11.7	32	26NW	
Truro	45 30	67 30	269	29.93	30.26	29.28	0.98	—	—	—	6	10	3	3	2	5	6	8	21	6	62	—	—	—
Wolfville	45 3	64 20	229	29.90	30.20	29.53	0.67	90	6	13	6	8	3	0	13	15	12	2	3	62	—	—	—	
Yarmouth	43 50	60 2	65	29.94	30.29	29.58	0.64	—	—	—	7	2	1	1	1	15	24	8	6	62	9.0	21	1SW	
P. E. ISLAND																								
Charlottetown	46 14	63 10	38	29.90	30.26	29.50	0.76	81	6	10	2	9	1	4	9	19	9	4	5	62	6.6	23	10SE	
NEWFOUNDLAND																								
Burin	47 0	56 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Fogo	48 43	54 30	10	—	—	—	—	—	—	—	8	17	2	0	33	5	2	3	7	0	4	62	—	—
Port aux Basques	47 35	59 13	20	29.91	30.22	29.55	0.67	—	—	—	8	17	2	0	33	5	2	3	7	0	4	62	—	—
St. George's	48 25	57 31	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
St. John's	47 34	52 42	125	29.93	30.38	29.60	0.78	—	—	—	7	10	5	6	8	8	21	2	3	0	62	—	—	—
BERMUDA																								
St. George's	32 17	64 46	151	30.19	30.34	29.98	0.36	81	5	1	8	4	5	1	12	22	25	3	0	93	—	—	—	



STATION	DIRECTION OF WIND FROM									Total number of observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	1	0	0	0	2	1	18	9	0	31
Didsbury.....	0	1	5	2	2	0	3	16	0	29
Edmonton.....	3	6	3	10	5	10	4	21	0	62
Hillsgrove.....	0	0	0	16	4	1	0	34	7	62
Loveland.....	0	4	3	9	2	8	7	14	15	62
Macleod.....	5	0	0	0	3	0	33	1	20	62
Paken (Victoria).....										
Ranfurly (Wetfield).....	4	5	3	5	15	3	33	14	11	93
SASKATCHEWAN—										
Chaplin.....	1	0	2	1	3	1	18	5	0	31
Crescent Lake.....	2	2	4	1	11	10	14	7	11	62
Estevan.....	1	1	4	4	1	6	7	4	3	31
Fort Qu'Appelle.....	0	3	6	12	5	8	22	0	6	62
Grenfell (Brownhill).....	1	0	1	14	6	19	3	16	0	60
Indian Head.....	4	0	4	2	15	18	20	25	5	93
Larchmount (Glenbrian).....	1	10	1	2	2	10	19	16	1	62
Moosomin.....										
Muenster (St. Peter's Monastery).....	6	4	6	5	17	8	12	4	0	62
Onion Lake.....										
Pense (Gatesgarth).....	0	1	0	9	1	3	5	12	0	31
Waseca.....	1	3	2	2	1	4	11	7	0	31
MANITOBA—										
Berens River.....										
Brandon.....	0	6	0	12	2	8	11	17	27	83
Hillview.....	0	2	9	8	4	12	15	43	0	93
Moose Horn Bay (Aitkensville).....										
Morden.....	9	5	7	2	7	8	10	12	2	62
Oak Bank.....	12	3	3	2	10	8	15	9	0	62
Stony Mountain.....	14	3	0	6	12	5	15	3	0	58
ONTARIO—										
Agincourt.....	1	1	5	13	15	15	13	30	0	93
Alton.....										
Beatrice.....	4	0	0	2	13	6	3	17	48	93
Birnam.....	11	3	0	4	7	4	13	11	9	62
Clinton.....	1	1	1	5	13	12	5	24	0	62
Cottam.....	19	1	1	4	29	4	4	0	0	62
Gravenhurst.....	11	0	7	7	8	7	19	14	20	93
North Bruce.....										
Orillia.....	1	0	1	2	8	7	11	1	0	31
Owen Sound.....										
Point Clark.....										
Port Dover.....	1	3	5	2	3	6	8	3	0	31
Stoney Creek.....	0	16	4	9	3	15	40	6	0	93
Uplands.....										
Wexford.....	2	0	2	2	0	4	2	8	11	31
QUEBEC—										
Abitibi.....	10	0	0	3	26	4	34	15	1	93
Anticosti, W. Pt.....	5	9	8	5	36	9	10	11	0	93
Anticosti, Heath Point.....	9	8	9	2	9	14	16	8	18	93
Bicquet.....	0	13	0	0	5	21	12	0	42	93
Bromc.....	9	0	2	2	3	15	59	0	3	93
Cape Chatte.....	1	0	8	1	4	4	53	1	21	93
Cape Magdalen.....	1	0	1	3	21	5	2	31	29	93
Cap Rouge.....	5	2	0	0	0	2	0	22	0	31
Chicoutimi.....	0	10	9	10	0	8	6	10	40	93
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	0	14	1	0	0	13	0	2	30
Moncton.....										
Pt. Lepreaux.....	4	4	6	3	3	21	29	11	0	81
Sussex.....	1	0	2	0	0	12	5	0	11	31
NOVA SCOTIA—										
Kentville.....	2	0	2	0	6	10	10	1	0	31
Parrsboro.....										
Port Hastings.....										
Sable Island, E. Pt.....										
Truro.....	12	1	1	8	13	25	20	8	5	93
Whitehead.....										

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Victoria.			.15	.50	.59	.66	.67	.74	.84	.82	.72	.78	.79	.71	.63	.27		
Sahnon Arm.			.42	.64	.70	.63	.63	.69	.68	.68	.71	.70	.68	.74	.63	.58	.16	
Nanaimo.		.01	.39	.52	.52	.55	.65	.66	.62	.64	.66	.65	.57	.58	.65	.42	.03	
Vancouver.		.12	.42	.49	.53	.53	.57	.64	.66	.63	.64	.71	.73	.72	.70	.57	.05	
Agassiz.			.02	.23	.33	.42	.51	.54	.57	.59	.58	.60	.60	.56	.44	.11		
Tranquille.			.50	.64	.68	.69	.77	.71	.77	.76	.78	.74	.76	.77	.66	.57	.10	
Summerland.		.08	.76	.75	.82	.81	.83	.80	.74	.74	.68	.72	.61	.67	.64	.33		
Kamloops.		.02	.63	.72	.77	.80	.82	.77	.77	.78	.79	.78	.74	.76	.71	.46		
Harper's Ranch		.28	.60	.86	.65	.67	.71	.66	.72	.71	.67	.63	.75	.54	.18			
Edmonton.		.03	.33	.61	.64	.67	.62	.64	.65	.64	.71	.64	.61	.62	.57	.43	.15	
Lethbridge.		.09	.60	.76	.75	.73	.81	.84	.80	.78	.82	.81	.71	.80	.73	.70	.37	
Lacombe.		.10	.66	.87	.85	.81	.77	.77	.82	.84	.88	.78	.75	.73	.66	.48	.06	
Medicine Hat.			.42	.69	.73	.73	.71	.77	.78	.76	.78	.76	.73	.78	.76	.57	.09	
Fort Dunvegan.			.13	.42	.57	.64	.65	.61	.61	.64	.59	.54	.60	.56	.46	.27		
Fort Vermilion.		.11	.40	.59	.64	.59	.65	.68	.75	.76	.76	.71	.69	.66	.63	.52	.33	.05
Battleford.			.26	.50	.63	.73	.74	.74	.77	.78	.75	.74	.75	.71	.74	.33		
Indian Head.			.23	.58	.68	.70	.78	.80	.82	.78	.77	.72	.75	.69	.58	.33		
Moosejaw.																		
Scott.		.09	.49	.57	.64	.62	.69	.77	.77	.72	.68	.70	.70	.68	.61	.31	.04	
Rosthern.		.11	.51	.60	.65	.64	.67	.67	.72	.71	.72	.69	.66	.65	.57	.53	.21	
Brandon.				.14	.55	.60	.70	.74	.69	.74	.73	.77	.74	.71	.29			
Winnipeg.		.03	.43	.58	.63	.75	.83	.81	.79	.80	.71	.79	.71	.74	.69	.41	.02	
Haileybury.		.06	.47	.52	.59	.62	.65	.66	.65	.65	.61	.59	.54	.52	.39	.29	.05	
Woodstock.			.25	.61	.67	.72	.80	.81	.83	.87	.85	.78	.78	.74	.77	.54	.05	
Lindsay.				.36	.76	.78	.82	.79	.81	.81	.77	.76	.71	.67	.48			
Barrie.			.43	.68	.78	.82	.78	.78	.80	.80	.73	.70	.72	.73	.65	.03		
Toronto.			.33	.70	.70	.86	.83	.85	.83	.85	.83	.82	.79	.77	.72	.54	.07	
Kingston.		.01	.30	.50	.47	.56	.71	.79	.77	.77	.73	.70	.66	.57	.63	.42	.03	
Ottawa.		.01	.41	.56	.69	.65	.68	.71	.74	.81	.82	.73	.67	.66	.55	.32	.02	
Montreal.		T	.36	.51	.59	.64	.61	.63	.74	.79	.77	.62	.60	.50	.37	.16		
Cap Rouge.			.23	.53	.59	.60	.58	.58	.57	.56	.53	.54	.49	.49	.44	.22		
Quebec.			.15	.45	.51	.51	.57	.59	.58	.57	.51	.50	.47	.41	.42	.15		
Ste. Anna de la Poutiere.		.04	.37	.56	.50	.57	.54	.58	.60	.59	.64	.57	.49	.45	.39	.28	.05	
Sherbrooke.		.02	.32	.56	.60	.56	.61	.60	.57	.55	.68	.70	.66	.58	.53	.33	.02	
Fredaricton.			.13	.30	.43	.45	.60	.59	.66	.62	.65	.41	.59	.48	.45	.33	.04	
Charlottetown.		.01	.28	.40	.48	.55	.50	.59	.62	.67	.69	.67	.67	.63	.51	.28		
Nappan.			.11	.31	.37	.46	.53	.53	.63	.68	.72	.68	.61	.59	.48	.39	.11	
Wolfville.		.02	.27	.39	.44	.60	.64	.68	.72	.69	.60	.71	.69	.62	.50	.43	.08	
Kentville.																		



*Thunder recorded:*

1. Westport, Chicoutimi, Liverpool, Beatrice, Rutherglen, Haliburton, Montreal, Kingston, Winnipeg, Swift Current, Edmonton, Vancouver, Gull Lake, Sherbrooke, Chaplin, Dunstable, Chiloctin, Daysland, Ranfurley, Sion, Perbeck, Springdale, Rathmullen.
2. Rapid City, Hillview, Almasippi, Aweme, Agincourt, Chapleau, Chicoutimi West, Charlottetown, Minnedosa, Atlin, Saskatoon, Lindsay, Truro, Crescent Lake, Kindersley, Chiloctin, Kelowna, Nelson, Perry Siding, Halkirk, Springdale.
3. Nipigon, Lake Edward, Haliburton, Kakabeka Falls, Reserve 40, Sydney, Port Arthur, Atlin, Saskatoon, Chiloctin.
4. Westminster, Georgetown, Brantford (Bow Park), Wiarton, Woodstock, Fredericton, Chicoutimi, Ste. Anne, White Shore Lake, Mistassini, Madoc, Kakabeka Falls, Quebec, Toronto, Port Stanley, Cochrane, Medicine Hat, Harmattan, London, Lindsay, Gravenhurst, Saskatoon, Dunstable, Agincourt, Rutherglen, Aurora, Peterboro, Haliburton, Wexford, Paris, Brantford, Wallaceburg, Lucknow, Clinton, Birnam, Orillia, Bruce Mines, Tappen, Chiloctin, Nelson, Rossland, Salmon Arm, Halkirk, Ranfurly, Alex, Hillsdown, Clemens, Springdale, Perbeck.
5. Rapid City, Emsdale, Woodstock, Hillview, Morden, Almasippi, Beatrice, Rutherglen, Lucknow, Clinton, Birnam, Markdale, Grand Falls, Cochrane, Port Arthur, Saskatoon, Athabasca Landing, Ranfurly, Sion.
6. Chicoutimi, Brome, Mistassini, Cap Rouge, Liverpool, New Germany, Big Chute, Orillia, Manouan Crossing, Chicoutimi West, Waseca, Duck Lake, Tappen, Revelstoke, Chiloctin, Kelowna, Pemberton Hatchery, Princeton, Vernon, Ruskin, Salt Spring Island, Halifax, St. John, Quebec, Stonecliffe, Parry Sound, Minnedosa, Victoria, Vancouver, Lindsay, Oliver, Qualicum, Keremeos, New Westminster, Hoop, Chilliwaek, Departure Bay, Salmon Arm, Perry Siding, Armstrong, Shownigan Lake, Nanaimo, Athabasca Landing, Campsie, Sion, Springdale, Sherbrooke, Banff.
7. Westport, Hillview, Morden, Almasippi, Treherne, Heron Bay, Minnedosa, Swift Current, Edmonton, Atlin, London, Melfort, Chaplin, Crescent Lake, Muenster, Dunstable.
8. Westport, Rutherglen, Cottam, Reserve 40, Port Arthur, Saskatoon, Halkirk.
9. Westminster, Deer Park, Georgetown, Emsdale, Brantford (Bow Park), Westport, White Rock, Woodstock, Brome, Timiskaming, Lake Edward, Madoc, Montague, Bruce Mines, Quebec, Montreal, Ottawa, Kingston, Toronto, Port Stanley, Swift Current, Haileybury, Lindsay, The Meadows, Cap Rouge, Agincourt, Beatrice, Almonte, Rutherglen, Morrisburg, Aurora, Port Dover, Peterboro, Haliburton, Wexford, Paris, Brantford, Birnam, Orillia, Saskatoon, Oliver, Fort Qu'Appelle, Beaver Mines, Sion, Okotoks, Springdale, Sherbrooke.
10. Cartwright, Bark Lake, Almasippi, Brome, Norwood, Reserve 40, Chicoutimi West, Quebec, The Pas, Moose Jaw, Edmonton, Oliver, Fort Qu'Appelle, Mayercroft, Tranquille, Annis, Tappen, Chiloctin, Creston, Nelson, Salmon Arm, Armstrong, Monte Creek, Loveland, Macleod, Springdale, Harmattan.
11. Oakbank, Almasippi, Swift Current, Medicine Hat, Edmonton, Melfort, Saskatoon, Kindersley, Tappen, Pemberton Hatchery, Waneta, Ranfurly, Okotoks.
12. Georgetown, Wiarton, Westport, Morden, Rutherglen, Port Dover, Madoc, Lucknow, Bruce Mines, Cottam, Reserve 40, Kingston, London, Dunstable, Qualicum, Quesnelle, Vernon, Ruskin, Salt Spring Island, New Westminster, Nanose Bay, Chilliwaek, Departure Bay, Alberni, Nelson, Perry Siding, Nanaimo.
13. Cartwright, Fredericton, Almasippi, Sussex, Haliburton, Sydney, Montreal, Swift Current, Medicine Hat, Saskatoon, Scott, Oliver, Nelson, Waneta, Halkirk, Ranfurly, Hillsdown, Springdale, Sherbrooke, Rathmullen.
14. Rapid City, Cartwright, Hillview, Almasippi, Kentville, Windsor, N.S., Reserve 40, Charlottetown, Qu'Appelle, Truro, Crescent Lake, Chiloctin, Tranquille, Keremeos, Nelson, Perry Siding, Halkirk, Loveland, Sherbrooke, Lost River.
15. Cartwright, Moose Jaw, Edmonton, Crescent Lake, Pense, Waterton Mills, Tranquille, Creston, Salmon Arm, Halkirk, Clemens, Rathmullen.
16. Wallaceburg, Birnam, Cottam, Qu'Appelle, Medicine Hat, Oliver, Waneta, Okotoks.
17. Cap Rouge, Reserve 40, Quebec, Cochrane, The Pas.
18. Westport, Quinze Dam, Fredericton, Liverpool, Schreiber, Almonte, Rutherglen, Renfrew, Madoc, Montague, Montreal River, Grand Falls, Reserve 40, Aithensville, Montreal, Ottawa, Stonecliffe, Kingston, Medicine Hat, Haileybury, Sherbrooke.

19. Emsdale, Westport, Quinze Dam, Abitibi, Mistassini, Schreiber, Rutherglen, Renfrew, Aurora, Madoc, Haliburton, Lucknow, Birnam, Kakabeka Falls, Heron Bay, Cedars, Ottawa, Kingston, Port Arthur, Medicine Hat, Haileybury, London, Sion, Sherbrooke.

20. Georgetown, Emsdale, Westport, Bark Lake, White Rock, Woodstock, Fredericton, Mistassini, Lake Edward, Liverpool, Agincourt, Athabasca Landing, Campsie, Okotoks, Goderich, Madoc, Brantford, Lucknow, Clinton, Birnam, Grand Falls, Reserve 40, Chicoutimi West, St. John, Quebec, Stonecliffe, Kingston, Toronto, Port Stanley, Medicine Hat, Lindsay, Truro, Gravenhurst, Melfort, Crescent Lake, Tranquille, Chilotin, Creston, Lost River.

21. Rapid City, Cartwright, Fredericton, Almasippi, Kentville, Windsor, N.S., Liverpool, Sydney, Winnipeg, Minnedosa, Halkirk, Loveland, Hillsdown, Clemens, Okotoks, The Pas, Qu'Appelle, Wolfville, Truro, Fort Qu'Appelle, Brooks, Cowley, Pekisko, Annis, Tappen, Glacier, Kelowna, Vernon, Cranbrook, Creston, Nelson, Nicola, Rossland, Salmon Arm, Perry Siding, Monte Creek, Campsie, Rathmullen.

22. Westport, Invermere, Schreiber, Aurora, Norwood, Kakabeka Falls, Reserve 40, Port Arthur, Swift Current, Battle Creek, Glacier, Summerland, Creston, Nakusp, Nelson, Rossland, Wilmer, Waneta, Perry Siding, Armstrong, Invermere, Banff.

23. Deer Park, Georgetown, White Shore Lake, Agincourt, Almonte, Madoc, Peterboro, Wexford, Orillia, Montreal River, Grand Falls, Nelson, Cape Magdalene, Chicoutimi West, Ottawa, Kingston, Toronto, Qu'Appelle, Haileybury, Lindsay, Annis, Kelowna, Nicola, Rossland, Waneta, Brooks.

24. Westport, Brome, Ste. Anne, Cap Rouge, Almonte, Morrisburg, Madoc, Haliburton, Montague, Reserve 40, Anticosti S.W. Pt., Quebec, Montreal, Dunstable, Gravenhurst, Waneta, Campsie, Springdale, Sherbrooke.

25. Fredericton, Sussex, Kentville, Summerside, Charlottetown, St. John, Kingston, The Pas, Edmonton, Truro, Melfort, Macleod, Rosthern, Crescent Lake, Coleman, Mayerth, Mountain View, Waterton Mills, Beaver Mines, Ranfurly, Lost River.

26. Brantford (Bow Park), Westport, Oakbank, Almasippi, Schreiber, Madoc, Bruce Mines, Heron Bay, Reserve 40, Winnipeg, The Pas, Qu'Appelle, Grand Prairie.

27. Warton, Westport, Niagara Falls, Chicoutimi, Mistassini, Agincourt, Port Dover, Madoc, Wexford, Wallaceburg, Lucknow, Dunstable, Alkali Lake, Vavenby, Campsie, Ranfurly, Clinton, Birnam, Orillia, Cottaam, Reserve 40, Stonecliffe, Southampton, Parry Sound, Edmonton, London, Lindsay, Gravenhurst.

28. Westport, Chicoutimi, Brome, Ste. Anne, Cap Rouge, Markdale, Montreal River, Anticosti S.W. Pt., Quebec, Montreal, Kingston, Port Stanley, Waseca, Mountain View, Chilotin, Rossland, Yarbo, Ranfurly, Hillsdown, Sherbrooke, Springdale, Lost River.

29. Rapid City, Cartwright, Westport, Perkins Mills, Hillsview, Morden, Almasippi, Treherne, New Germany, Norwood, Aitkensville, Port Stanley, Port Arthur, Winnipeg, Perbeck.

30. Morden, Sussex, Schreiber, Cedars, Halifax, St. John, Ottawa, Port Arthur, Minnedosa, Truro.

31. Abitibi, Schreiber, Montreal River, Bruce Mines, Kakabeka Falls, Chapleau, Cochrane, Port Arthur, Haileybury.

*Auroras recorded:*

- 1.
- 2.
- 3.
- 4.
5. Port Dover.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
28. Aweme IV, White Shore Lake, Mistassini IV.
- 29.
- 30.
31. Aitkensville IV, Melfort IV.

## FORECASTS FOR JULY 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1338. These were divided as follows:—

District	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	81	58	16	7	81.5
Saskatchewan.....	80	56	16	8	80.0
Manitoba.....	80	60	12	8	82.5
Lake Superior.....	125	76	33	16	74.0
Lower Lake Region.....	125	105	14	6	89.6
Georgian Bay.....	125	101	16	8	87.2
Ottawa Valley.....	110	90	18	2	90.0
Upper St. Lawrence.....	110	92	16	2	90.9
Lower St. Lawrence.....	124	92	24	8	83.9
Gull.....	126	82	34	10	78.6
Maritime Provinces West.....	126	92	28	6	84.6
Maritime Provinces East.....	126	95	25	6	86.1
Total.....	1338	999	252	87	84.1

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director

Meteorological Office, Toronto,

August 25th, 1913.







DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

# Monthly Weather Review

VOL. XXXVII.

AUGUST, 1913

No. 8

## INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

The monthly mean temperatures were above the average by about  $2^{\circ}$  in British Columbia except locally along the Upper Fraser River; were from  $2^{\circ}$  to  $4^{\circ}$  above average in the Western Provinces and varied from average to  $2^{\circ}$  above in Ontario.

From Montreal eastward to the Atlantic temperatures were in nearly all districts below average, but by only  $1^{\circ}$ .

Between the 13th and 15th in Manitoba, and the 15th and 18th in Ontario, the weather was excessively hot, maxima approaching very closely to  $100^{\circ}$ .

## PRECIPITATION.

Except along the Lower Fraser River, the North Coast and in the Queen Charlotte Islands, the rainfall in British Columbia exceeded the normal amount by a small quantity, but occurred on from six to nine days only in most districts.

In the Western Provinces the rainfall was heavy, and in several instances the amount which fell was twice the normal quantity. It was recorded on from six to fifteen days.

In Ontario, along the Upper St. Lawrence and Lower Ottawa Rivers, and in the Georgian Bay counties the rainfall was less than normal, but elsewhere in that Province was largely in excess.

In Quebec and the Maritime Provinces there was a general deficiency except in the northwestern section of Quebec.

## HIGH AREAS.

Nine areas of high pressure were charted, seven first appearing on the Pacific coast between latitudes  $50^{\circ}$  and  $60^{\circ}$ , one on the coast of the State of Washington, and one in Dakota. The general course of the areas was either over or to the northward of the Great Lakes, thence southeast to the New England and Middle Atlantic States.

The systems in almost all cases were of the usual feeble summer type.

## LOW AREAS.

Eight areas of low pressure were sufficiently well defined to allow of the paths being approximately charted.

Six first appeared in British Columbia, mostly towards the northern portion, one in the North Pacific States, and one in the vicinity of the Middle Atlantic States. The general track of the areas was over the Western Provinces, thence far to the northward of the Great Lakes, and over either Labrador or the Gulf of St. Lawrence.

## ATMOSPHERIC PRESSURE.

The values of the mean atmospheric pressure for August at the Telegraphic Reporting Stations indicate that pressure was generally above average throughout Canada. The departure from normal was in most localities about 0.03 of an inch, and reached or exceeded 0.05 of an inch over the greater part of the Maritime Provinces and also locally in Manitoba. Near the shores of Lake Erie values were slightly subnormal.

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on August 6th, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—735 mm.

Temperature +18.3° C.

Direction of flight at Beginning—slowly West,  
gradually turning to South.

Fell—152 km. distant S. 60° E.

Maximum Height—13.6 km.

Minimum Temperature —51.0° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees	
G.L. = 0.3	735	18.3	
0.5	717	17.0	16.0
1.0	673	14.5	13.5
1.5	635	11.5	11.0
2.0	598	8.5	8.0
2.5	561	6.5	5.5
3.0	528	2.5	2.0
3.5	495	0.0	
4.0	465	-1.5	2.5
4.5	437	-5.0	6.5
5.0	409	8.0	-9.5
5.5	383	-10.0	-12.5
6.0	359	-15.0	-16.0
6.5	337	-18.0	-19.0
7.0	313	-22.0	-23.5
7.5	292	-26.5	-27.5
8.0	273	-30.0	
8.5	255	-33.0	
9.0	236	-36.5	
9.5	220	-41.0	
10.0	204	-44.5	
11.0	175	-48.0	
11.6	161	-50.5	
12.0	150	-50.5	
12.5	140	-50.0	
13.0	129	-49.5	-51.0

An area of high pressure was centered to the north of the great lakes, giving fine and moderately warm weather throughout Ontario.

## WINDS, AUGUST, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION.
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	6124	435							
Prince Rupert.....	6277	446	34	SW	7	2	9	13	SW
Victoria.....	7046	409	31			1	12	12	NW
Point Garry.....									
Vancouver.....								3	
Kamloops.....	3355	259	16	S	22				
ALBERTA.									
Edmonton.....									
Calgary.....	12422	375	23	NW	5		1	6	NW
SASKATCHEWAN.									
Battleford.....	7112	500	40	SW	15	2	6	12	NW
Prince Albert.....									
Swift Current.....	7924	470							NW
Qu'Appelle.....	6563	491	26	NW	27		6	14	NW
MANITOBA.									
The Pas.....			34		25				W
Winnipeg.....	7695	420	34	SE-NW	11	2	4	20	SE & NW
ONTARIO.									
Port Arthur.....	6580	431	32	NW	22	2	7	13	NW
White River.....									N
Cochrane.....	6290	258	19	N	23		1	15	N
Perry Sound.....	4968	283							SW
Souhampton.....	3631	392	24	SW	16-26-29		5	16	NW
Pelée Island.....	7261	531	34	W	27	6	6	11	
Woodstock.....									
Guelph.....	5803	322							SW
Toronto.....	7360	403	31	W	26	1	14	12	E
Kingston.....									SW
Stoneyham.....	7171	171	14	N	9			5	W
Ottawa.....									SW
QUEBEC.									
Montreal.....			24	SW	16		8	16	SW
Sherbrooke.....									
Quebec.....	6729	281	27	SW	23		11	13	SW
Father Point.....	7899	377	40	W	25	4	12	10	W
Anticosti, SW.....	9428	872	42	NW & W	25	7	13	10	SE
Harrington.....	8506	472	33		24	1	12	16	W
NEW BRUNSWICK.									
Pt. Esquimaux.....	10363	661	43	NE	11	3	16	9	SW
Fredericton.....	5914	320	21	W	10		2	15	W*
St. John.....	7297	486	34	S	23		9	15	S
Pt. Lepreau.....	6554	412	22	SW	6-23		4	23	W
NEW SCOTIA.									
Yarmouth.....	6468	439	31	SW	23	1	4	15	SW
Wolfville.....									
Halifax.....	7789	314	41	SW	30	4	7	15	SW
Sable Island.....	6270	274	15	NE	20			10	SW
Flat Point.....	9441	773	49	NE	11	4	15	10	W
PELLETTIER ISLAND.									
Charlottetown.....	5003	349	21	SW	24		2	12	SW

\* 24 hours only.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. AUG., 1913.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.						
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of aurora.
BRITISH COLUMBIA—																	
S. Vancouver Island																	
Alberni (Beaver Creek).....	49 15	121 49	300	61.5	+ 3.5	18	98.0	1	40.0	20-21	23.9	1.62	+0.51	0.50	5	22	.....
Clayoquot.....	49 11	123 55	27	60.2	+ 0.7	14	77.0	5-28	45.0	23	18.2	2.19	-1.45	0.48	9	22	.....
Cloosa.....	.....	.....	.....	59.4	—	1	80.0	23	48.0	14	15.4	1.67	—	0.57	6	25	.....
Cowichan (Tzouhalem).....	48 25	123 42	170	63.9	—	1	87.0	1	43.9	22	23.1	0.90	—	0.80	4	27	.....
Departure Bay.....	.....	.....	.....	64.2	—	1	89.6	1	46.4	17	18.6	0.45	—	0.30	5	26	.....
Gill's Bay.....	.....	.....	.....	62.0	—	1	88.0	1	43.5	17	29.5	1.64	—	0.70	24	.....	.....
Ladysmith.....	.....	.....	.....	62.6	—	1	89.0	1	43.0	15	23.2	0.83	—	0.46	20	.....	.....
Nanaimo.....	49 10	123 37	125	61.9	+ 1.4	11	83.2	9	37.1	17	16.1	1.51	+0.29	0.25	17	24	.....
Nanaimo Bay.....	49 17	124 12	130	61.6	—	2	85.0	1	44.0	20	21.5	1.16	—	0.25	7	24	.....
Salt Spring Island.....	48 50	123 20	.....	65.4	—	4	85.0	1	46.0	17-19	19.6	1.09	—	0.51	4	27	.....
Shawminig Lake.....	.....	.....	.....	65.0	—	1	83.0	1	47.0	16-19	17.7	1.02	—	0.73	5	25	.....
Sooke.....	48 41	123 44	25	58.8	—	1	86.0	19-50	43.0	14	22.5	0.86	—	0.20	6	23	.....
Victoria.....	48 24	123 19	95	62.6	+ 2.4	21	85.8	1	46.0	19	19.1	0.84	+0.23	0.70	3	28	.....
N. Vancouver Island																	
Holberg.....	50 39	128 18	.....	60.1	—	5	85.2	2	44.0	20	15.8	5.16	—	1.60	12	19	.....
Quinsai.....	50 32	127 40	.....	58.3	+ 0.2	17	79.0	2	44.0	21	18.2	5.78	+0.66	1.38	9	12	.....
Swanson Bay.....	50 37	126 53	.....	55.3	—	2	68.0	21	48.0	31	6.8	2.91	—	1.12	9	12	.....
Triangula Island.....	50 52	129 5	680	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lower Fraser River																	
Agassiz.....	49 14	121 31	52	64.5	+ 0.9	22	91.0	1	46.0	17-20	23.3	2.71	-0.04	0.80	8	23	.....
Chilliwack.....	49 10	121 57	21	63.9	+ 1.3	11	92.0	1	46.0	16	21.6	2.22	-0.07	0.44	10	21	.....
Hope.....	49 23	121 25	500	61.5	—	4	91.0	1	46.0	18-20	20.9	1.91	—	0.80	10	21	.....
Ladner.....	49 05	123 4	.....	62.0	+ 2.8	13	80.0	1-10	40.0	19	1.0	0.25	-0.97	0.15	2	29	.....
New Westminster.....	49 13	122 54	330	63.9	+ 2.8	26	85.0	1	48.4	26	19.6	0.76	-1.20	0.24	6	15	.....
North Nicomen.....	49 12	122 2	69	65.4	+ 2.5	21	92.0	1	45.0	16	29.1	2.75	+0.49	1.34	26	.....	.....
Pemberton Hatchery.....	50 20	122 33	.....	62.5	—	5	92.0	1	42.0	20	24.7	3.15	—	1.30	21	.....	.....
Pemberton Meadows.....	.....	.....	.....	60.3	—	1	88.0	1	38.0	20	27.3	1.50	—	0.64	8	23	.....
Ruskin (Slave Falls).....	49 16	122 23	125	65.8	—	4	97.0	2	44.0	21	25.2	3.63	—	1.21	10	21	.....
Staveston (Garry Point).....	49 21	123 17	.....	61.2	+ 0.8	18	78.0	23	44.0	21	16.7	0.51	-0.60	0.35	4	27	.....
Vancouver.....	49 17	123 5	136	62.8	+ 1.3	13	82.2	1	47.9	19	16.8	0.85	-0.94	0.24	8	23	.....
Upper Fraser River																	
Babine Lake.....	55 38	126 28	.....	55.6	—	4	83.0	1-5	33.0	13	20.6	—	—	—	—	—	—
Barkerville.....	53 02	121 35	4180	52.1	- 0.9	26	78.0	1	33.0	31	13.0	5.54	+2.46	1.03	19	12	.....
Chiloutin (Big Creek).....	51 40	123 0	3100	55.1	- 0.5	15	82.0	1	31.0	16	26.9	3.32	+1.41	1.08	12	19	.....
Fort George.....	51 40	123 0	.....	59.7	—	1	90.0	2	55.0	12-27	30.6	1.86	—	0.51	13	18	.....
Fort St. James (Sturtz Lake).....	54 28	124 12	2280	55.3	+ 1.5	20	78.0	2	29.0	12	27.1	1.87	+0.49	0.60	9	22	.....
Hydraulic.....	.....	.....	.....	60.3	—	1	91.0	2	37.0	31	29.5	3.69	—	1.10	16	15	.....
Quesnela.....	52 59	122 30	1700	61.5	+ 1.3	18	90.0	3	39.0	27	19.3	0.65	+1.18	1.00	9	22	.....
Okanagan Valley																	
Duck Lake Ranch.....	50 3	119 20	1400	66.1	—	1	97.0	1	42.0	18	28.6	1.62	—	0.42	9	22	.....
Hedley.....	49 35	120 10	1771	66.8	—	10	98.0	1-2	43.0	17	26.5	0.83	-0.16	0.40	6	25	.....
Hedley (Nickel Plate).....	.....	.....	.....	66.8	—	3	90.0	2	43.0	18	25.2	1.21	—	0.45	5	26	.....
Keremeos.....	49 15	119 29	1200	67.8	—	6	92.0	2-3	45.0	18	19.7	1.28	—	0.66	7	24	.....
Kelowna (Okanagan Mission).....	49 15	119 29	1200	64.3	+ 0.0	15	91.0	1	44.0	19	24.5	1.27	+0.22	0.75	7	24	.....
Penticton.....	49 29	119 35	.....	66.0	—	6	91.5	19	39.6	15	28.0	1.17	—	0.22	7	24	.....
Princeton.....	49 29	120 29	1650	62.6	+ 0.4	19	95.0	1-5	36.0	15-16	31.8	1.08	+0.21	0.45	9	22	.....
Richlands.....	.....	.....	.....	59.4	—	1	91.0	1	34.0	19	29.0	1.64	—	0.30	8	23	.....
Summerland.....	49 30	119 40	1100	66.3	—	6	94.0	1	42.0	18	23.5	0.85	—	0.40	5	26	.....
Vernon (Coldstream Ranch).....	50 14	119 15	1582	65.4	- 0.1	20	93.0	1	43.0	18	26.9	0.86	-0.18	0.25	8	23	.....
West Kootenay																	
Crawford Bay.....	49 45	116 45	2000	62.3	—	2	86.0	1-4	43.0	19	25.2	2.19	—	0.73	8	13	.....
Creston.....	.....	.....	.....	62.9	—	1	91.0	23	39.0	14-15	38.0	1.14	—	0.27	8	13	.....
Grand Forks.....	49 2	118 27	.....	66.8	—	3	90.0	2	43.0	16-18	32.1	0.71	—	0.20	5	26	.....
Greenwood.....	49 5	118 49	.....	62.8	—	3	96.0	1	43.0	20	28.6	1.20	—	0.45	5	25	.....
Howser.....	.....	.....	.....	64.2	—	2	89.0	2	44.0	16-18	33	2.81	—	0.82	12	19	.....
Kaslo.....	49 52	117 0	1752	60.3	—	4	83.0	2	40.0	18	27.8	1.94	—	0.87	7	24	.....
Nakusp.....	.....	.....	.....	61.3	—	2	87.0	1	38.0	16	27.1	0.85	—	0.27	8	13	.....
Nelson.....	49 29	117 21	1760	64.3	+ 1.2	11	93.0	1	41.0	16	27.5	2.75	+0.45	0.65	6	25	.....
Perry Siding.....	49 5	117 48	3190	61.7	—	1	95.0	1	39.0	17	28.7	2.31	—	1.08	8	23	.....
Rossland.....	.....	.....	.....	62.6	—	9	85.0	1-23	33.5	15	30.8	0.71	—	0.33	6	25	.....
Waneta.....	.....	.....	1238	61.8	—	1	91.0	2	38.5	26	27.2	0.29	—	0.13	6	25	.....
East Kootenay																	
Cambrook.....	49 30	115 59	.....	61.6	—	4	92.0	1	20.0	16	35.4	2.24	—	0.93	7	14	.....
Elko (Fruitlands).....	49 1	115 5	2684	65.3	+ 1.7	18	94.1	4	37.0	16	30.3	1.13	-0.24	0.6	10	11	.....
Invermere.....	50 30	116 2	2691	61.3	—	2	81.0	1	37.0	17	34.9	1.95	—	0.73	4	27	.....
Winnor.....	50 34	116 14	.....	61.2	—	4	85.0	3	36.0	16	35.6	2.14	—	0.72	9	22	.....
Thompson River																	
Armstrong.....	50 32	119 7	1180	60.8	—	1	100.0	2	39.0	26	27.8	1.66	—	0.55	4	22	.....
Ashtcroft.....	50 32	119 7	1180	60.8	—	1	100.0	2	39.0	26	27.8	1.66	—	0.55	4	22	.....
Endorby.....	50 41	120 29	1245	64.5	+ 0.8	10	91.0	1	43.0	17	28.7	1.57	+0.75	0.75	10	21	.....
Harper's Ranch.....	50 41	120 29	1245	64.5	+ 0.8	10	91.0	1	43.0	17	28.7	1.57	+0.75	0.75	10	21	.....
Kamloops.....	50 9	120 39	2120	68.2	+ 0.1	21	95.5	1-2	47.0	20	24.9	0.80	-0.25	0.26	8	13	.....
Monte Creek.....	.....	.....	.....	64.7	—	1	94.0	2	41.0	15	27.1	1.60	—	0.45	8	23	.....
Nicola Lake.....	.....	.....	.....	61.3	+ 0.4	18	90.0	2	41.0	17	24.9	1.49	+0.59	0.67	8	13	.....
Nicola Lake.....	50 42	119 35	1152	64.8	+ 1.6	12	90.0	1-2	42.0	18	26.2	1.48	+0.24	0.53	8	13	.....
Salmon Arm.....	.....	.....	.....	61.6	—	2	92.2	1-5	43.0	18	26.4	0.78	—	0.55	4	27	.....
Salmon Arm (Exp. Farm).....	.....	.....	.....	61.6	—	2	92.2	1-5	43.0	18	26.4	0.78	—	0.55	4	27	.....
Tappen.....	.....	.....	.....	67.3	—	1	97.0	1	42.0	20	30.6	1.49	—	0.30	11	20	.....
Tranville.....	50 41	120 29	.....	65.0	—	1	95.0	1	42.0	20	35.0	2.77	—	0.50	5	27	.....
Tranville.....	51 36	119 45	1450	63.1	—	1	91.0	2	40.0	25	30.7	2.15	—	0.54	12	19	.....
North Columbia River																	
Faquier.....	51 14	117 29	4422	64.1	- 0.6	11	91.0	1	37.0	16	36.1	2.20	—	0.61	8	23	.....
Gleicher.....	50 0	118 6	1476	54.0	+ 2.2	12	86.0	2	35.0	16	19.9	2.77	+4.40	1.64	13	18	.....
Reynolds.....	51 0	118 6	1476	54.0	+ 2.2	12	86.0	2	35.0	16	19.9	2.77	+4.40	1.64	13	18	.....
Reynolds.....	51 0	118 6	2550	63.5	+ 2.2	13	85.0	1-3	42.0	18	20.7	4.69	+1.98	1.00	13	18	.....

## TEMPERATURE AND PRECIPITATION AT STATION 8 IN THE DOMINION OF CANADA, AUG., 1913.

\* Stations not furnished with Registering Thermometers

STATION.	LATITUDE.		Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.				Days with 0.1 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
	Latitude N.	Longitude W.		Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.				
BRITISH COLUMBIA CONT.																		
North Coast.																		
Hella Coola	52	40	126 51	150	59.8	- 0.4	15	84.0	2	45.0	1 21	20.6	1.77	- 0.14	0.57	7	21	..
Kitla River	54	18	130 18	170	58.0	—	4	78.0	21	36.0	13 11	5.08	—	—	1.45	13	18	..
Prince Rupert	55	1	130 1	215	55.2	—	4	75.0	2	38.0	31 20.3	6.69	—	—	1.43	15	16	..
Stewart	56	1	130 1	215	63.5	—	1	55.0	9	38.0	31 24.0	1.60	—	—	1.63	5	26	..
Queen Charlotte Islands.																		
Keda Bay	52	17	131 7	5	55.3	- 3.6	16	69.0	19	38.0	10 13.8	2.13	- 0.60	0.55	16	15	..	..
Masset	53	58	132 9	30	55.3	- 3.6	16	69.0	19	38.0	10 13.8	2.13	- 0.60	0.55	16	15	..	..
Yukon Boundary.																		
Atlin	59	35	133 38	2240	49.4	—	8	68.0	22	28.0	31 17.3	1.27	—	0.49	11	20	..	..
YUKON—																		
Carcross	60	11	134 34	2171	56.9	—	6	68.0	5	26.0	31 20.7	1.01	—	0.36	6	25	..	..
Dawson	64	4	139 29	1200	52.5	+ 0.2	12	80.0	5	29.0	31 25.6	0.67	- 1.51	0.06	2	29	..	..
MACKENZIE—																		
4 <sup>th</sup> Resolution.	61	0	113 0	800	52.5	—	12	80.0	5	29.0	31 25.6	0.67	- 1.51	0.06	2	29	..	..
ALBERTA—																		
N. Saskatchewan River.																		
Coronation	54	8	114 42	..	55.8	—	1	81.2	1	32.2	30 25.3	2.32	—	0.48	15	16	..	5
Dayland	55	52	112 17	..	62.5	—	1	90.0	27	35.0	29 31.7	2.00	—	2.00	1	30	..	..
Edmonton	53	53	113 30	2158	60.3	+ 1.0	31	83.0	28	38.0	17 24.3	4.81	+ 1.49	0.87	13	18	..	..
Edmonton	52	0	112 0	2795	58.4	—	3	84.5	23-26	36.2	15-18 24.9	2.22	—	0.87	9	22	..	1
Edmonton	52	17	112 10	..	59.2	—	4	87.0	26	37.0	19 24.3	2.39	—	0.57	13	18	..	1
Lloydminster	52	7	112 10	..	52.7	—	1	85.0	25-30	41.0	16-19 21.9	0.38	—	0.10	7	24	..	..
Lloydminster	52	30	111 59	..	59.5	—	4	86.0	1-26	35.0	17 25.0	2.45	—	0.86	8	31	..	..
Lloydminster	52	30	112 31	..	55.8	—	8	81.1	26	34.0	17 24.1	4.82	—	1.66	19	12	..	1
Lloydminster	53	29	113 33	2000	59.5	—	2	80.0	1-23	30.0	30 23.1	3.20	—	0.39	15	16	..	1
Lloydminster	53	54	111 15	..	59.2	—	1	86.5	2-6	35.0	17 24.1	3.70	—	0.89	13	18	..	..
Lloydminster	52	14	113 29	2006	59.1	—	9	83.0	1-5	37.0	10-17 25.9	1.45	—	0.71	10	21	..	..
Lloydminster	52	58	113 23	2480	61.1	+ 4.7	12	85.0	26	38.0	31 28.7	5.10	+ 2.60	2.00	6	25	..	..
The Red Deer River.																		
Atlin	52	24	113 10	..	60.5	—	8	95.0	2	30.0	19-21 21.0	1.62	—	0.35	11	20	..	1
Chiltenham	52	24	113 10	..	62.0	—	1	92.2	3	35.0	15 27.5	2.54	—	0.67	8	23	..	2
Delta	51	38	112 25	..	60.2	—	3	83.5	26	36.2	20 21.9	3.10	—	0.67	10	21	..	..
High River	51	40	114 8	..	59.3	+ 2.2	11	86.0	26	28.0	15-16 24.2	3.62	- 0.16	0.55	13	18	..	..
Hermiston	51	45	113 23	3590	56.1	—	6	81.0	24	32.0	15 28.1	4.08	—	0.90	13	18	..	..
Hillhead	52	14	113 29	2006	59.1	—	9	83.0	1-5	37.0	10-17 25.9	1.45	—	0.31	13	18	..	1
Lacombe (Ex. Fern)	52	58	113 44	2783	57.6	—	6	84.0	26	35.4	19 27.4	2.43	—	0.42	11	17	..	..
Perleek	52	16	113 49	..	59.3	—	1	87.5	1	35.5	19 26.8	3.66	—	1.22	12	17	..	4
Red Deer	52	16	113 49	..	59.3	—	1	87.5	1	35.5	19 26.8	3.66	—	1.22	12	17	..	..
Springdale	52	16	113 49	..	55.4	—	1	82.2	1	31.0	27 26.8	4.66	—	1.12	11	17	..	10
The Bow River.																		
Brooks	51	21	111 54	..	62.0	—	2	91.0	4	32.0	19 30.4	0.07	—	0.04	2	29	..	1
Calgary	51	2	114 2	3427	61.4	+ 2.3	29	90.0	23	38.0	10 30.0	5.19	+ 2.07	0.86	14	17	..	..
Cardston	49	12	113 18	..	60.7	+ 2.6	12	88.0	33	38.0	20 27.2	1.48	—	0.55	5	26	..	..
Chetopa	50	59	112 24	2652	60.7	+ 2.6	12	88.0	33	38.0	20 27.2	1.48	—	0.55	5	26	..	..
High River	50	35	113 55	3394	60.2	—	12	89.0	4-24	35.0	17 31.1	2.16	—	0.65	8	23	..	..
Lawrence (Parkland)	50	16	113 26	..	59.1	—	6	89.0	4-10	35.0	40 41.1	1.47	—	0.80	5	26	..	..
Lethbridge	49	42	111 51	2961	..	—	6	92.8	24	35.8	16 30.0	1.97	—	0.50	11	20	..	..
Lethbridge (Exp. Farm.)	49	43	112 51	..	63.4	—	1	81.5	24	35.1	16-20 27.5	3.20	—	1.22	8	23	..	1
Lundbreck	49	41	113 24	3128	63.6	+ 1.8	16	91.5	24	37.0	16 27.3	1.48	- 0.43	0.55	9	22	..	3
Medicine Hat	50	1	110 37	2143	60.6	+ 3.2	29	97.0	2	41.0	16-19 29.7	2.43	+ 0.95	1.52	6	25	..	5
Okotoks	50	35	113 55	..	57.5	—	1	81.2	27	32.0	16-16 34.2	1.90	—	0.67	6	26	..	..
Strathmore	50	7	113 24	..	59.7	—	2	87.8	23	37.0	13-16 26.9	2.37	—	0.38	12	19	..	..
Sundhill	50	6	112 31	..	63.3	—	3	92.0	23	40.0	15 28.4	1.65	—	0.63	5	26	..	..
Rocky Mountains.																		
Banff	51	10	115 34	4512	56.7	+ 2.0	18	83.2	1	30.2	16 26.9	2.85	+ 0.48	0.75	9	22	..	6
Branson Forest (Coal Spur)	49	40	114 30	4225	51.6	—	1	86.0	5	20.5	20 38.7	1.70	—	0.72	8	23	..	1
Athabasca River.																		
Athabasca Landing	54	43	113 17	1650	58.7	—	10	85.0	3	33.0	3 25.7	2.64	—	1.31	6	25	..	..
Lumford	54	33	114 10	..	55.1	—	4	80.0	1-8	32.0	30 24.5	2.83	—	0.71	9	22	..	..
Pembina	54	12	114 0	..	..	—	..	..	..	..	..	..	—	..	..	..	..	..
Peace River.																		
Beaver Lodge	55	20	119 21	..	55.5	—	2	89.0	3	33.0	13 26.2	2.53	—	1.63	7	24	1	33
Chapman	55	56	118 35	1306	..	—	..	..	..	..	..	..	—	..	..	..	..	..
Fort Vermilion	58	27	116 3	..	..	—	..	..	..	..	..	..	—	..	..	..	..	..
Fort Vermilion (2)	..	..	..	..	..	—	..	..	..	..	..	..	—	..	..	..	..	..
Grand Prairie	..	..	..	..	54.9	—	1	84.0	2	35.0	2-21 28.1	1.40	—	1.31	4	7	..	..
Peace River Crossing	..	..	..	..	55.0	—	6	82.0	24	39.0	17 22.4	2.91	—	1.10	10	21	..	..
Spirit River	..	..	..	..	..	—	..	..	..	..	..	..	—	..	..	..	..	..



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, 1900.

\* Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Long. 100 W.	Elevation above sea level, in feet.	TEMPERATURE.				PRECIPITATION.				Days with 01 or more. No. of fair days.	No. of thunders. days.	No. of days.	
				Mean.	Difference from average.	Yr's observations.	Hottest.	Date.	Lowest.	Date.	Mean daily range.				Yr's observations.
SASKATCHEWAN—															
Qu'Appelle River															
Broadview.....	50 23	102 24	1961	—	—	—	—	—	—	—	—	—	—	—	—
Brownhill (Greenell).....	50 23	101 5	1457	62.0	—	20	87.0	1-2	40.0	17 22.3	2.61	—	—	—	—
Brownlee.....	50 45	101 0	—	—	—	—	—	—	—	—	—	—	—	—	—
Buchanan.....	50 50	101 5	1658	61.9	—	1	81.4	2	38.5	17 22.0	2.50	—	—	—	—
Crescent Lake.....	50 50	101 5	1658	60.2	—	8	81.2	1	41.8	17 22.0	2.50	—	—	—	—
Estevan.....	50 42	100 4	1858	60.1	—	4	81.2	11	45.0	17 22.0	2.50	—	—	—	—
Fort Qu'Appelle.....	50 42	100 4	1858	60.1	—	4	81.2	11	45.0	17 22.0	2.50	—	—	—	—
Hubbard (Drumque).....	51 5	101 24	—	59.4	—	—	80.0	2 15	37.7	17 22.0	2.50	—	—	—	—
Harbold.....	52 12	101 8	—	56.7	—	—	80.0	2 15	37.7	17 22.0	2.50	—	—	—	—
Imperial.....	51 22	101 2	—	61.9	—	—	80.0	2 15	37.7	17 22.0	2.50	—	—	—	—
Indian Head.....	50 28	101 3	1124	61.6	—	0.1	84.0	1 1	36.0	17 22.0	2.50	—	—	—	—
Kamsack.....	50 28	101 3	1124	62.1	—	2	87.0	1 1	36.0	17 22.0	2.50	—	—	—	—
Manor.....	49 43	101 2	1714	—	—	—	—	—	—	—	—	—	—	—	—
Moose Jaw.....	50 21	101 3	1759	64.5	—	18	81.0	1	38.0	17 22.0	2.50	—	—	—	—
Mosomin.....	50 0	101 27	1884	61.3	—	10	83.4	4	38.0	17 22.0	2.50	—	—	—	—
Muenster (St. Peter's M.).....	50 0	101 0	1850	58.7	—	—	81.0	2	38.0	17 22.0	2.50	—	—	—	—
Pilger.....	50 23	100 9	—	59.2	—	—	80.0	1	38.0	17 22.0	2.50	—	—	—	—
Pease (Gatesgarth).....	50 30	100 0	1879	63.0	—	6.0	81.0	1	38.0	17 22.0	2.50	—	—	—	—
Qu'Appelle.....	50 30	100 17	2115	62.0	—	3.0	85.0	12	38.0	17 22.0	2.50	—	—	—	—
Quill Lake.....	52 4	101 14	1600	—	—	—	—	—	—	—	—	—	—	—	—
Ragina.....	50 27	100 37	1885	62.7	—	1.4	85.0	12	38.0	17 22.0	2.50	—	—	—	—
Strongfield.....	51 5	101 7	—	—	—	—	—	—	—	—	—	—	—	—	—
Strassburg.....	51 5	101 7	—	—	—	—	—	—	—	—	—	—	—	—	—
Yarbo (Fairfield).....	50 30	100 4	—	60.7	—	7	82.0	2	36.0	17 22.0	2.50	—	—	—	—
Yellow Grass.....	49 49	101 2	—	63.4	—	3	80.0	1 41	32.0	17 22.0	2.50	—	—	—	—
Yorkton.....	51 11	101 2	—	52.2	—	4	81.0	—	42.0	18 19.5	3.84	—	—	—	—
S. Saskatchewan River															
Chapin.....	50 26	100 29	2202	62.1	—	0.2	87.0	1-2	40.0	17 22.3	2.61	—	—	—	—
East End (Dwyer).....	49 31	101 8	—	—	—	—	—	—	—	—	—	—	—	—	—
Kellyhurst (Nashlyn).....	51 46	100 18	—	—	—	—	—	—	—	—	—	—	—	—	—
Kinderley.....	49 21	100 9	—	62.0	—	1	89.0	27	38.0	16 26.0	2.2	—	—	—	—
Larchmont (Glenbryn).....	49 51	100 27	—	62.1	—	3	82.0	2	31.0	16 26.0	1.34	—	—	—	—
Oliver.....	49 51	100 27	—	60.3	—	4	89.0	1	32.0	17 28.5	1.87	—	—	—	—
Portmullen.....	51 20	100 37	—	61.1	—	3	87.0	1	38.0	19 22.0	0.41	—	—	—	—
Swift Current.....	50 20	100 25	2129	64.4	—	0.4	27	94.0	1	30.8	28 24.4	1.13	—	—	—
N. Saskatchewan River															
Battleford.....	52 41	100 20	1620	62.3	—	0.4	23	85.0	1-29	40.0	17 22.3	2.61	—	—	—
Lloydminster.....	53 18	100 0	—	—	—	—	—	—	—	—	—	—	—	—	—
Luseland.....	52 5	100 24	—	61.0	—	3	88.0	3	33.0	15 30.1	2.42	—	—	—	—
Oliver.....	53 52	100 29	—	65.5	—	6	85.0	—	28.0	20 23.8	—	—	—	—	—
Onion Lake.....	51 0	100 59	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince (Monta).....	51 0	100 20	1700	—	—	—	—	—	—	—	—	—	—	—	—
St. Walburg.....	51 59	100 20	—	59.9	—	4	86.1	29	34.3	17 22.2	2.62	—	—	—	—
Scott (Ex. Farm).....	53 6	100 29	—	58.4	—	6	84.0	26	35.0	17 23.8	1.28	—	—	—	—
Waseca.....	53 6	100 29	—	58.4	—	6	84.0	26	35.0	17 23.8	1.28	—	—	—	—
The Saskatchewan Forks															
Chaponea (Star City).....	52 32	104 13	—	—	—	—	—	—	—	—	—	—	—	—	—
Durk Lake.....	52 54	106 20	—	—	—	—	—	—	—	—	—	—	—	—	—
Melfort.....	53 47	104 30	—	58.6	—	4	80.0	3	38.0	17 24.0	2.57	—	—	—	—
Prince Albert.....	53 10	100 0	1432	67.3	—	2.9	28	86.5	22	41.8	17 22.8	4.73	—	—	—
Rosthern.....	52 40	106 20	1657	60.0	—	—	82.0	30	43.2	16 21.5	2.88	—	—	—	—
Saskatoon.....	52 15	106 20	1571	61.6	—	1.3	86.4	30	40.4	17 23.7	2.78	—	—	—	—
Lower Saskatchewan River															
Cumberland House.....	51 56	100 16	—	—	—	—	—	—	—	—	—	—	—	—	—
Lost River.....	53 17	104 21	—	58.8	—	3	81.0	30	38.0	10 23.0	4.36	—	—	—	—
MANITOBA—															
Qu'Appelle and Assiniboine Rivers															
Awenne (St. Albans).....	49 42	99 27	1180	66.7	—	9.2	58	67.0	13 14	42.0	6 27.8	3.15	—	—	—
Boisvein.....	51 25	101 1	1203	67.2	—	2	85.0	15	43.0	15 13.1	2.61	—	—	—	—
Brandon.....	49 51	99 57	1176	63.8	—	0.7	15	94.0	13	41.0	31 25.0	3.56	—	—	—
Carberry.....	49 52	99 20	1258	—	—	—	—	—	—	—	—	—	—	—	—
Carman.....	49 51	99 20	1258	—	—	—	—	—	—	—	—	—	—	—	—
Cypress River.....	49 53	100 23	1400	64.7	—	8	92.0	14-15	41.0	6 27.1	3.65	—	—	—	—
Hillview.....	49 53	100 23	1400	63.7	—	2.4	28	88.0	13	51.0	6 27.8	4.44	—	—	—
Minnedosa.....	50 15	99 50	1690	63.2	—	1.9	39	89.5	13	43.0	26 24.0	2.51	—	—	—
Ninette.....	49 24	99 38	1303	—	—	—	—	—	—	—	—	—	—	—	—
Ninon.....	49 14	99 51	1640	65.1	—	4	92.0	11	45.0	10 27.6	3.71	—	—	—	—
Pierson.....	49 11	101 5	1531	65.8	—	8	99.0	15	29.0	11 31.2	5.78	—	—	—	—
Pinestone.....	49 34	100 58	1400	—	—	—	—	—	—	—	—	—	—	—	—
Portage la Prairie.....	49 57	98 17	—	65.1	—	1.5	23	91.5	15	45.0	10 27.0	2.87	—	—	—
Portage la Prairie (2).....	49 57	98 17	—	65.1	—	3	82.1	30	43.2	16 21.5	2.88	—	—	—	—
Russell.....	50 50	101 20	—	60.5	—	1.6	20	82.0	14	45.0	1-17 19.6	2.11	—	—	—
Souris.....	49 36	98 40	1212	65.0	—	4.0	18	92.0	13	45.0	6 27.2	4.41	—	—	—
Treherne.....	49 51	100 55	1444	63.6	—	8	92.0	13	40.0	5 25.8	2.18	—	—	—	—
Virden.....	49 51	100 55	1444	63.6	—	8	92.0	13	40.0	5 25.8	2.18	—	—	—	—
The Red River															
Almasippi.....	49 14	99 20	—	65.2	—	2.8	11	75.0	13	46.0	6-22 26.2	1.15	—	—	—
Morden.....	49 11	98 6	978	65.3	—	9	92.0	15	46.0	10 22.7	3.59	—	—	—	—
Oak Bank.....	49 57	96 42	803	63.1	—	1.8	17	88.0	14	41.5	24 21.5	4.18	—	—	—
Stony Mountain.....	50 40	97 14	803	65.0	—	1.6	31	90.0	11	40.0	10 29.5	3.80	—	—	—
Winnipeg.....	49 53	97 7	760	61.1	—	2.0	4.0	90.8	14	44.1	10 21.0	4.71	—	—	—

## TEMPERATURE AND PRECIPITATION AT STATION 8 IN THE DOMINION OF CANADA, AUG., 1913.

\* Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.			Days with 40 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.					
MINNESOTA—Continued.																		
<i>Dauphin Lake and River</i>	52 18	90 23	710															
Borens River	51 8	160 2	957	62.0	—	3	87.0	14	40.0	2	21.4	2.65	—	0.67	6	25	..	..
Moon Hare Bay (Atkinsville)	51 15	99 33		62.3	—	3	85.0	14	41.2	6-10	19.7	2.12	—	0.81	11	20	..	5
<i>Lake Winnipegosis</i>	52 6	101 15	1112	61.4	—	4	89.0	20-29	38.0	9-10	19.8	2.92	—	0.52	16	15	1	4
Le Pas																		
SASKATCHEWAN.																		
The Lake Superior Districts.																		
<i>Rainy River</i>																		
Fort Frances	49 48	9 32	1102	60.4	—1.9	14	87.0	16	29.0	12-13	26.9	1.11	—2.17	1.02	4	27	..	..
Kemora				65.5	—	1	82.5	14	49.0	10	17.4	3.87	—	1.50	8	23	..	4
Shoal Lake																		
<i>Thunder Bay</i>																		
Kakabeka Falls	48 29	89 26	912	61.3	—	5	90.0	16	21.0	7-24	27.7	2.79	—	1.18	10	21	..	5
Port Arthur	48 27	81 12	614	61.2	+1.3	32	85.0	2	38.0	24	20.6	12.87	—0.16	1.35	11	20	..	7
Schreiber	48 50	87 15	933	57.7	—0.4	10	81.5	17	37.5	23	20.7	4.69	—	3.00	10	21	..	3
<i>Algoma</i>																		
Bruce Mines	46 18	83 55	695	65.1	+2.1	14	88.0	16-17	38.0	25	23.4	3.18	+0.49	0.72	10	21	..	5
Chapleau				61.2	—	1	89.0	15	50.0	25	16.3	1.62	—	0.38	8	23	..	1
Copper Cliff	46 30	80 53		65.0	—	6	93.0	17	57.0	25	21.6	1.97	—	0.88	8	23	..	..
Porcupine	45 49	82 14		63.5	—	3	93.0	16	40.0	25	24.6	3.24	—	0.85	13	18	..	..
Providence Bay	48 35	85 16	1252	63.7	—	2	84.0	16	41.0	25	17.8	3.50	—	0.60	11	20	..	..
Timmins (Sandy Falls)																		
White River				59.7	—0.5	24	86.0	14-15	27.0	25	27.2	2.06	—0.97	0.36	15	16	..	3
<i>Nipissing</i>																		
Chelmsford	49 2	81 0	945	59.4	—	3	90.0	15	30.0	26	23.0	2.54	—	0.66	17	14	..	3
Haleybury	47 29	79 39	657	62.5	+0.2	20	90.5	15	54.9	25	20.2	5.09	+2.22	1.30	14	17	1	3
Temagami Falls				59.8	—	1	90.4	15	29.7	25	23.7	2.94	—	0.49	17	14	..	..
Montreal River	47 8	79 29		59.9	—	3	93.0	17	33.0	24	35.8	2.76	—	0.73	7	24	..	..
<i>Upper Ottawa River</i>																		
Rutherford (Lake Palom)	46 15	74 48		63.0	+1.2	19	92.2	17	30.6	25	28.7	4.31	+1.35	1.63	12	19	..	4
Steeles (Rockville)	46 9	78 6	657	63.7	+1.0	35	97.0	17	36.0	24-25	26.1	3.46	+0.50	1.47	16	15	..	3
<i>Upper St. Lawrence and Lower Ottawa Rivers</i>																		
Alma	45 12	74 13	390	61.4	—	2	94.2	17	35.2	25	23.8	3.34	—	1.27	11	20	..	..
Bloomfield	43 59	77 21	260	68.5	+0.9	13	98.0	1	41.5	25	22.5	1.31	—0.63	0.95	3	28	..	2
Colborne				67.5	—	2	93.0	17-18	43.0	11	21.3	0.83	—	0.20	4	27	..	..
Hillier	44 13	76 29	285	67.2	+0.7	38	87.8	18	41.2	25	17.6	2.81	—0.13	1.00	8	23	..	6
Kempton	44 56	75 57		65.7	—	4	95.0	17	36.5	25	25.9	3.12	—	1.32	8	23	..	5
Montreal				64.1	—	1	95.5	17	34.0	25	27.1	2.34	—	0.89	9	22	..	..
Morrisburg				66.5	—	9	95.0	16	35.0	24	29.3							
North Gower	45 26	75 43	294	65.9	—0.8	30	92.0	16	41.0	4	19.8	3.48	+0.28	2.13	11	20	..	2
Ottawa	45 26	76 39	416	65.9	+2.2	24	99.5	16	35.5	25	28.4	1.13	—1.81	0.39	8	23	..	5
Redfern																		
<i>Georgian Bay Counties</i>																		
Baird	44 23	70 41	839															
Bentley	45 8	79 20	800	63.1	+1.4	43	88.0	15	31.0	25	22.2	2.51	—0.76	1.72	10	21	..	5
Big Lake (Midland P.O.)				67.0	—	1	93.0	1-15	37.0	10	22.6	1.73	—	0.60	6	25	..	..
Colborne	44 38	79 40	600	63.0	+4.6	24	95.0	16	38.0	26	29.4	0.55	—1.84	0.31	2	29	..	..
Collingwood	44 31	80 2	635	64.0	—	0.7	92.0	17	31.0	25	26.4	1.60	—1.70	0.65	7	24	..	..
Gravenhurst	44 54	79 20		64.7	—	7	93.0	17	32.0	25	26.3							
Huntsville	45 10	79 8		64.7	—	7	93.0	17	32.0	25	26.3							
Midland	44 41	79 53	750	63.8	—	6	91.0	1	44.0	21	26.5	1.00	—	0.41	7	24	..	..
Markdale				64.5	—	2	95.5	15	38.0	25	26.3	1.14	—	0.80	3	28	..	3
Mosford				65.8	+2.7	13	94.0	16	43.0	24	16.9	1.66	—0.55	1.13	8	23	..	..
Orillia	44 37	79 24	775	64.4	+1.8	18	98.0	16	38.0	25	24.1	1.64	—0.84	0.96	7	24	..	2
Oroville	44 34	80 55	597	63.5	+1.3	37	92.0	15	37.0	25	21.9	4.53	+1.23	1.76	11	20	..	4
Perry Sound	45 19	80 0	635	62.5	—	6	93.0	17	33.0	24	23.8	2.92	—	1.33	8	23	..	1
Rosville	45 15	78 67	1038	63.5	—	6	93.0	17	33.0	24	23.8	2.92	—	1.33	8	23	..	1
Upland	45 48	79 25																
<i>Lake Huron Counties</i>																		
Burnham	43 2	81 55	600	67.4	+1.1	30	87.5	16	41.0	25	18.8	5.79	+3.39	2.14	6	25	..	8
Clinton	43 32	81 37		66.6	+2.1	11	93.0	1	37.0	25	22.3	3.60	+0.84	2.13	9	22	..	5
Godwin	43 45	81 41		66.9	—0.2	23	91.0	1	41.5	25	18.9	3.21	—	1.3	8	23	..	2
Lacknow	43 56	81 30	908	64.8	—1.3	27	88.9	16	38.9	25	24.1	3.86	+1.21	0.99	10	21	..	6
North Bruce	44 23	81 25																
Point Clark	44 5	81 44	695															
Southampton	44 30	81 21	656	66.1	+1.2	36	88.9	5	40.6	25	19.5	1.13	—1.40	0.33	8	23	..	..
<i>Lakes St. Clair &amp; Erie.</i>																		
<i>Niagara Peninsula</i>																		
Chatham	42 23	82 12	675	71.7	+3.2	26	96.0	17	59.0	11-12	21.2	3.61	+1.61	1.56	4	27	..	..
Cottam	42 7	82 45	606	71.0	+2.2	25	96.0	16	59.0	24	23.5	1.38	—0.02	0.75	4	27	..	1
Dutton																		
Granville	43 13	79 36		69.5	—	4	95.0	16	47.0	24	20.5	5.87	—	1.56	9	22	..	..
Island	41 50	82 35	655	79.3	+6.3	29	99.5	17	61.0	30	10.3	0.62	—1.37	0.19	5	26	..	..
Port Huron	42 39	80 55	592	66.3	—0.1	10	83.0	17	41.5	25	17.7	6.17	+2.37	2.52	7	24	..	..
Port Dover	42 27	80 18	675	67.3	+1.0	37	88.5	17	42.1	25	18.6	6.63	+4.33	2.20	10	21	..	4
Port Stanley	42 40	81 13	592	67.1	+0.4	39	89.2	17	41.0	25	18.2	5.53	+3.00	1.58	9	22	..	5
St. Catharines	43 9	79 17	347															
Stoney Creek	43 13	79 45	292	68.5	—0.6	29	95.0	17	44.0	25	12.2	5.08	+3.00	2.43	5	26	..	2
Wainwright	42 35	82 24																
Welland	42 59	79 17	577	68.6	+0.9	25	91.0	17	45.0	25	19.6	4.48	+2.00	1.68	8	23	..	..
Win Lake	42 20	83 4	625	72.0	+1.5	23	93.0	16	51.0	25	18.9	2.13	—0.46	0.94	6	25	..	..

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, 1901

\* Stations not furnished with registering thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE						PRECIPITATION									
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Haviest fall in month.	Days with 01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.
ONTARIO—Continued—																			
West-Central Counties																			
Alton.....	43 51	80 5	1250	57.7	-0.2	29	95.0	17	45.0	4	66.7	4.85	-1.27	1.45	8	23	...	6	...
Brantford.....	43 10	80 21	750	57.7	-0.2	29	95.0	17	45.0	4	66.7	4.85	-1.27	1.45	8	23	...	6	...
Elora.....	43 41	80 24	1274	57.7	-0.2	29	95.0	17	45.0	4	66.7	4.85	-1.27	1.45	8	23	...	6	...
Guelph.....	43 33	80 16	1050	57.8	+2.1	26	95.0	16-17	34.0	25	21.8	3.75	+0.65	1.37	8	23	...	6	...
Listowel.....	43 16	79 51	363	66.2	—	13	90.0	16-18	37.0	25	21.8	4.52	+1.24	1.82	7	24	...	...	...
London.....	42 59	81 13	805	68.0	+1.6	29	94.0	16	38.0	25	24.5	5.93	+3.49	1.30	8	23	...	5	1
Paris.....	43 12	80 25	840	68.0	+1.0	24	94.0	16-17	42.0	25	24.5	4.61	+1.58	1.24	10	21	...	3	1
Shelburne.....	43 23	81 0	1191	66.7	-1.9	37	91.0	17	36.0	25	22.6	3.58	+1.59	1.05	7	21	...	...	...
Stratford.....	43 8	80 47	980	66.1	+0.2	41	89.0	16	39.0	25	21.4	3.35	-0.09	1.82	7	24	...	2	...
Woodstock.....	43 8	80 47	980	66.1	+0.2	41	89.0	16	39.0	25	21.4	3.35	-0.09	1.82	7	24	...	2	...
Lake Ontario Counties																			
Agincourt.....	43 47	79 16	500	68.8	+1.6	17	96.0	16	41.0	25	23.4	1.87	+0.37	1.12	8	23	...	5	...
Aurora.....	43 57	79 24	885	61.9	—	9	92.0	16	35.0	24	24.5	4.71	+1.55	2.46	7	24	...	1	...
Hamilton.....	43 16	79 51	363	68.1	-1.7	29	93.0	16	41.0	24	19.6	4.73	+2.60	0.55	10	21	...	...	...
Oshawa.....	43 53	78 52	331	68.7	+1.5	72	92.0	16-17	42.2	25	20.3	2.27	-0.39	0.56	11	20	...	7	1
Toronto.....	43 40	79 24	350	68.1	—	9	90.0	17	47.0	25	15.6	...	...	...	...	...	...	...	...
Toronto Is.(Lakeside Home)	43 40	79 24	...	68.1	—	9	90.0	17	47.0	25	15.6	...	...	...	...	...	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Wexford.....	43 44	79 17	555	65.3	—	2	88.0	16	39.0	25	19.1	1.87	—	1.61	7	24	...	5	...
East-Central Counties																			
Bancroft.....	45 1	77 50	...	63.0	+2.3	19	92.5	17	31.0	24	26.7	0.65	—	0.65	1	30	...	...	...
Hamilton.....	45 1	78 28	1030	64.7	+1.5	26	94.0	16	31.0	25	30.9	2.21	+0.59	1.20	6	25	...	...	...
Lakeland.....	44 45	78 38	920	62.4	+0.1	14	90.0	16-17	31.0	24	30.1	3.34	+0.81	2.15	9	22	...	1	...
Lindsay.....	44 25	78 15	850	67.3	+0.7	30	91.0	18	44.0	25	19.0	2.91	+0.51	2.35	4	27	...	1	...
Lindsay.....	44 20	78 45	872	66.6	+2.1	34	97.0	18	37.8	25-26	26.6	3.07	+0.57	1.24	7	24	...	1	1
Madoc.....	44 30	77 29	575	66.2	—	9	94.0	17	37.0	25	27.3	3.78	—	1.55	7	24	...	7	...
Norwood.....	44 30	77 29	575	66.2	—	9	94.0	17	37.0	25	27.3	3.78	—	1.55	7	24	...	7	...
Peterboro.....	44 30	77 29	575	66.2	—	9	94.0	17	37.0	25	27.3	3.78	—	1.55	7	24	...	7	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3.38	—	1.22	6	23	...	...	...
Uxbridge.....	44 5	79 8	886	66.2	—	9	90.0	16	37.0	25	22.1	3							

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE						PRECIPITATION				Days with 40 or more No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs	
				Mean	Difference from average	Yr's Observations	Highest	Day	Lowest	Date	Mean daily range	Amount	Difference from average					Heaviest fall in month
NOVA SCOTIA																		
Albion	45 18 01	63 21	74	61.1	—	82	6	11	28.0	21 22.3	—	—	—	—	—	—	—	
Antigonish	44 39 01	63 21	88	61.1	—0.6	82	6	10	28.7	21 24.5	1.65	—2.5	0.57	11 20	—	—	5	
Beaumont	45 3 01	63 21	40	60.9	—	84	0	16	24.0	21 25.3	1.42	—	0.58	8 23	—	—	1	
Beaumont	—	—	—	61.1	—	86	0	16	24.0	21 23.0	1.19	—	1.13	10 21	—	—	—	
Chapman	—	—	—	59.0	—	85	0	18	21.0	20 29.0	4.76	—	2.90	4 27	—	—	—	
Moncton	—	—	—	62.9	—	86	0	3	37.0	22 27 29.6	1.07	—	0.64	5 26	—	—	—	
New Brunswick	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Parishville	45 23 04	64 19	42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Port Hawkesbury	45 39 01	63 21	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Sable Island, E. Pt.	43 58 59	60 23	25	62.5	—0.8	80	73	14	33.0	2 12 19.4	1.81	—1.25	0.55	8 23	—	—	7	
Sable Island (Main S. Pt.)	43 57 00	60 6	25	61.3	—0.8	80	83	3	11.5	1 22 19.6	1.12	—1.87	0.34	9 22	—	—	2	
Sydney	46 10 00	60 19	25	61.3	—0.1	87	6.3	3	33.0	21 25.3	2.41	—1.24	0.81	11 20	—	—	1	
Truro	45 22 03	63 18	77	61.3	—0.1	87	6.3	3	33.0	21 25.3	2.41	—1.24	0.81	11 20	—	—	1	
Windsor	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Yarmouth	45 15 01	61 8	20	61.5	—0.2	29	67.0	8-30	31.0	26	—	—	—	6 25	—	—	4	
Wolfeville	41 59 04	6	90	64.2	—0.7	11	85.5	17	37.5	21 21.3	1.48	—	0.61	9 22	—	—	—	
Wolfeville	45 7 01	61 21	62.5	—0.6	14	85.3	16	40.7	21 20.7	1.45	—2.11	0.34	7 21	—	—	1		
Yarmouth	43 50 09	62	65	29.8	—1.0	32	74.0	10	41.1	21 15.5	0.62	—3.03	0.19	9 22	—	—	2 7	
P. E. ISLAND																		
Charlottetown	46 14 03	1	28	61.6	—0.2	37	81.0	6 15	43.0	21 16.1	2.65	—0.94	0.76	8 23	—	—	3	
Charlottetown (Top of Hill)	46 14 03	1	25	64.4	—	—	79.5	16	33.0	21 18.0	2.89	—	0.79	10 21	—	—	2	
Hamilton	46 25 03	48	—	62.9	—0.7	16	79.0	19	41.0	23 14.7	1.04	—0.17	0.85	5 26	—	—	—	
Summersdale	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NEWFOUNDLAND																		
Amqui (Plant)	51 28 53	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Burns	47 0 55	11	27	57.8	—	5	71.0	7	36.0	21 16.1	2.58	—	1.18	13 18	—	—	3	
Cape Norman	51 38 55	52	—	55.5	+1.4	29	69.0	2	42.0	28	—	2.36	—1.68	0.34	12 19	—	—	11
Fogo	49 43 51	17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Point Rase	50 42 57	25	35	59.8	—2.1	31	63.0	30-31	45.0	10	—	0.85	—2.82	0.45	3 28	—	—	3
Port aux Basques	47 35 59	19	27	56.7	—	5	69.0	16	42.5	12 11.3	3.39	—	1.10	12 19	—	—	1 5	
St. George's	—	—	—	58.3	—	22	70.4	5	42.5	11 13.2	0.58	—	0.14	9 22	—	—	2 3	
St. John's	47 34 52	42	125	58.6	—0.7	40	79.0	31	42.0	1 16.3	3.83	+1.18	1.31	15 16	—	—	1 1	
LABRADOR																		
North West River	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
BERMUDA																		
Prospect	32 17 04	45	151	77.9	—2.4	23	81.2	2	67.4	18 10.7	8.86	+2.88	2.72	19 12	—	—	6	

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c. DURING AUGUST, 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....	2.55	11	20	0.57	18					
Amos (Canoe Point).....	1.27	8	22	0.46	17					
Armstrong.....	0.72	2	29	0.61	16					
Beaver Lake.....	0.52	5	26	2.63	12					
Coquitlam.....										
Cariboo Road No 111.....										
Denman's Island.....	0.98	7	24	0.41	15					
Fergusson.....	1.97	5	26	0.84	12					
Goldstream Lake.....	0.88	6	25	0.58	17					
Hydramile.....	4.41	13	18	1.51	8					
Hornby Island.....	0.59	2	29	0.22	16					
Invermere.....	1.84	11	20	0.55	8					
Jordan River.....	0.44	3	28	0.31	7					
Jordan River (Bear Creek).....	0.63	5	26	0.52	17					
Little Qualicum (Fr. Cr.).....	0.55	3	28	0.65	16					
Lumby.....	1.11	8	24	0.33	18					
Nasau Harbour.....	4.47	11	20	1.51	6					
Rock Creek.....	0.81	5	26	0.27	14					
Shawmagan Lake.....										
Wycliffe.....										
ALBERTA—										
Bardo.....	3.76	9	22	0.65	17					
Bismark.....	1.81	8	23	0.42	27					
Brookerville.....	4.42	15	18	1.16	14					
Bitter Lake.....	2.13	11	20	0.83	18					
Beaver Mines.....	1.92	5	26	0.91	8					
Coleman.....	2.58	8	23	0.61	9					
Cowley.....	1.92	8	23	0.68	9					
Caldwell.....	1.73	10	21	0.75	8					
Clareholm.....	1.56	7	24	0.78	9					
Clarinda.....	2.55	6	25	0.54	15					
Doreness (Bashaw).....	1.55	6	25	0.70	31					
Dunstable (Five Lakes).....	2.85	17	14	0.67	13					
Grassy Lake.....	4.25	4	27	1.25	15					
Jumping Pound.....	4.59	5	26	1.53	12					
Loch Sloy.....										
Lyndoo.....	5.06	7	24	1.25	9					
Lineham.....	3.11	4	27	1.85	9					
La Pearl.....	2.28	7	24	0.58	3					
Lebbidge.....	1.56	10	21	0.45	7					
Macleod.....	2.09	4	27	1.45	4					
Mayeroff.....	2.82	10	21	1.42	9					
Mountain View.....	3.95	6	23	1.62	9					
Manville (Roycroft Ranch).....	1.24	8	23	1.26	31					
Nateby.....										
Nanton.....	5.93	10	21	1.06	9					
Okotoks.....										
Pekisko.....	5.21	9	22	1.20	31					
Ponoka.....	5.50	6	25	1.03	13					
Seven Persons.....	2.54	5	26	1.40	18					
Tilley.....										
Writing-on-Stone (Court).....										
Waterton Mills.....	2.18	5	26	1.69	9					
SASKATCHEWAN—										
Battle Creek.....										
Gull Lake.....	2.64	9	22	0.66	18					
Gull Lake (Fks. Swift Cr.).....	2.47	8	23	1.27	16					
The Meadows (Battle Cr.).....	2.29	6	25	0.89	17					
Willow Creek (Maple Cr.).....										
Wapashoe.....	1.04	8	23	0.27	18					
MANITOBA—										
Cartwright.....	2.95	7	24	1.01	18					
Deloraine.....										
Norquay (Swan Lake).....	4.97	10	21	1.51	20					
Rapid City.....	4.87	8	23	2.77	14					
Rose Bank.....										
ONTARIO—										
Brantford (Bow Park Farm).....	4.21	11	21	1.16	28					
Deer Park.....	1.50	7	24	0.35	22					
Dutton.....										
Emsdale.....	1.07	15	18	1.98	25					
Fort Frances.....										
Georgetown.....	2.51	9	22	0.93	2					
Grantham.....	5.14	8	23	1.97	10					
Grand Valley.....	2.09	8	23	0.51	24					
Hillier.....										
NasCoe.....	3.16	8	23	1.13	22					
Niagara Falls.....	2.20	10	21	1.95	28					
Nipigon.....	5.72	5	22	2.77	28					
Pruetston.....	4.44	4	22	1.40	24					
Point Clark.....	2.09	7	26	0.73	19					
Tennew.....										
Sydenham.....	3.55	6	25	1.11	22					
Strathroy.....	5.95	5	24	2.01	10					
Wainford.....	5.11	8	23	1.14	8					
Westport.....	5.26	9	22	2.00	20					
Westminster.....	5.75	4	21	2.04	10					
Woner.....										
Wesley.....										
Wattensyl.....										
Warton.....	1.20	5	26	0.63	1					

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING AUGUST, 1913.

STATIONS	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
QUEBEC—										
Bark Lake (Riviere Desert)										
Kipawa Dam.....	3.94	12	19	1.03	17-22					
Lucerne.....										
Manouan Crossing.....	4.15	21	10	0.66	6	*	1	*	25	
Niclot.....	1.60	4	23	0.62	2					
Perkins Mills.....	3.36	5	26	2.35	23					
Quinze Dam.....	3.84	5	26	1.55	22					
Timiskaming.....	5.68	11	20	1.61	23					
Ville Marie.....	2.97	10	21	0.52	26					
NEW BRUNSWICK—										
Point Escuminac.....	2.93	8	23	0.72	9					
NOVA SCOTIA—										
Big Mushamush Lake (Ma- honey).....										
Kentville.....	1.81	9	22	0.50	11					
Milton.....	1.20	3	28	0.80	23					
Mushamush River (Mahoney)										
Nappan.....	3.76	8	23	1.06	5					
South Ajton.....										
White Rock.....	1.48	7	24	0.35	27					



PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF AUGUST, 1913.

n Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud.		DIRECTION OF WIND FROM								VELOCITY OF WIND					
				Mean reduced.	Highest.	Lowest.	Range.		No. of days completely clouded.	No.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.	
BRITISH COLUMBIA—																								
Admiral	50	53 133	35	2210	30 04	30 35	29 26	0 72	1	6	10	2	0	3	15	25	2	1	7	7	62	8 7		
Barkerville	53	2 121	35	4180	20 62	30 41	29 70	0 71	82	5	7	0	0	0	0	3	9	2	7	48	30			
Kamloops	50	42 120	29	1245	29 33	30 25	29 58	0 67	57	6	8	2	1	14	1	12	2	15	4	11	62	4 7	10 22 S	
Nanaimo	49	10 123	37	125	29 32	30 15	29 72	0 43	68	4	13	2	2	7	1	12	0	2	7	29	62			
Prince Rupert	54	18 130	18	170	30 02	30 20	29 66	0 63	80	7	12	1	0	1	7	5	13	6	2	1	37	62		
Triangle Island	50	52 129	5	680	30 12	30 42	29 84	0 57	93	2	12	1	3	0	0	4	6	10	27	2	62	11 4	30 (30-31)	
Tranquille	50	41 120	29		28 72	29 05	28 40	0 65	70	5	12	1	4	6	1	0	1	15	0	35	62			
Vancouver	49	17 123	5	136	30 04	30 24	29 81	0 48	78	4	9	2	0	3	20	2	2	5	0	12	62			
Victoria	48	24 123	19	85	30 04	30 28	29 83	0 45	71	5	4	2	2	1	2	10	17	19	0	11	62	8 4	31 7 SW	
YUKON—																								
Dawson	64	4 139	20	1200	29 53	30 32	29 22	1 10		6	4	12	0	0	3	6	0	0	1	40	62	1 7	10 27 SE	
ALBERTA—																								
Beff	51	10 113	44	3712	30 09	30 40	29 45	0 94	69	4	3	2	5	0	1	1	21	12	0	20	62			
Calgary	51	2 114	2	3585	29 57	30 26	29 45	0 93	61	5	6	2	4	0	1	8	7	8	16	7	62	3 3	23 5 NW	
Edmonton	53	33 113	30	2165	29 39	30 32	29 47	0 85	81	5	6	2	4	4	10	7	4	8	16	7	62			
Medicine Hat	50	1 110	37	2181	29 30	30 37	29 33	1 02	63	4	2	4	1	4	0	3	17	15	4	14	62			
SASKATCHEWAN—																								
Battleford	52	41 108	20	1620	29 34	30 29	29 40	0 89	84	4	5	1	1	7	11	0	3	4	9	18	62	9 6	40 15 SW	
Moose Jaw	50	21 103	35	1750	29 30	30 23	29 32	0 91	71	3	6	2	7	5	16	4	1	7	11	7	52	99		
Regina	50	33 108	0	1432	29 33	30 26	29 45	0 81	76	6	0	6	2	5	1	8	7	6	11	12	62			
Qu'Appelle	50	30 103	47	2135	29 55	30 38	29 36	1 02	80	4	7	5	4	14	2	3	9	14	1	12	62	8 8	26 27 NW	
Swift Current	50	20 107	45	2349	29 33	30 27	29 38	0 99	70	7	0	2	2	2	6	12	12	6	11	5	63	10 7		
MANITOBA—																								
Aweme (St. Alban's)	49	42 39	33	1180	28 73	29 04	28 36	0 89																
Minnedosa	50	15 39	60	1999	29 38	30 29	29 49	0 81	84	4	2	2	4	8	9	6	1	3	5	14	21	62		
Tonawaka	49	42 102	15	860	29 30	30 32	29 37	0 99	82	5	8	4	8	5	10	12	9	7	17	10	2	62	34	25 15 SW
Winnipeg	49	55 37	7	760	29 32	30 30	29 39	0 90																
ONTARIO—																								
Cochrane	49	2 81	0	946	30 02	30 37	29 48	1 09	79	5	4	17	0	0	2	15	2	18	6	2	62	7 1	19 3 N	
Guelph	43	33 39	18	650								1	8	0	16	1	31	1	23	7	62	7 8		
Hastleybury	47	2 79	34	687	30 01	30 52	29 49	1 03	73	6	10	15	0	2	3	9	3	8	7	9	62			
Kingsville	41	17 79	29	275	30 02	30 29	29 60	0 89	71	5	4	14	0	0	6	1	1	1	7	0	62			
London	42	30 81	12	508	30 00	30 33	29 50	0 80	72	6	12	18	2	20	0	4	14	0	1	0	62			
Lindsay	44	29 78	45	282	30 11	31 45	28 53	0 70		4	3	4	10	5	7	2	3	12	26	83	62			
Ottawa	45	26 75	42	244	29 39	30 21	29 00	0 87	83	4	2	6	4	5	4	6	1	12	5	4	62			
Perry Sound	45	19 80	0	655	30 40	30 40	29 50	0 81	83	8	5	6	7	5	8	2	12	10	0	4	62	6 7		
Port Arthur	48	27 80	12	634	30 01	30 40	29 62	0 78	77	5	8	8	21	16	5	1	12	17	83	8 5	32 22 NW			
Port Stan'y	42	40 81	13	592	30 30	30 21	29 74	0 93	83	4	5	0	5	3	3	1	7	10	11	19	62		16 29	
Southampton	44	30 81	21	636	30 03	30 40	29 65	0 75		4	5	5	6	7	8	5	8	10	1	3	12	62	4 8	24 29 SW
Stenehoff	46	9 78	6	1557	29 37	30 51	29 54	0 99	92	6	10	3	0	0	6	0	0	1	12	1	90	62	4 3	14 18
Tonawaka	43	40 74	24	308	30 30	30 32	29 68	0 69	71	4	4	9	3	11	4	4	7	10	9	0	62	9 9	31 20 W	
White Riv'r	48	35 85	16	232	29 30	30 41	29 35	1 06		6	4	19	2	3	11	16	2	5	0	4	62			
Woodstock	43	8 80	47	980	30 01	30 35	29 72	0 64	76	6	8													
QUEBEC—																								
Anticosti S. W. Pt.	40	24 63	35	30	29 30	30 37	29 55	0 82	90	5	4	13	7	1	31	12	2	3	21	3	93	12 1	42 25 W	
Father Point	38	31 68	19	20	29 34	30 42	29 58	0 91	85	6	10	2	0	6	0	2	1	44	1	6	62	10 6	40 23 W	
Montreal	45	30 73	35	187	29 30	30 33	29 50	0 80	61	5	4	11	11	8	18	24	15	3	0	62	7 3	12 7 40 16 SW		
Que. ex.	46	48 71	13	263	29 39	30 30	29 50	0 92	73	5	6	3	17	7	4	2	27	17	13	3	93	9 0	27 23 SW	
Shenorok	45	32 72	5	620	31 02	30 45	29 59	0 89	66	5	2	0	4	8	8	21	21	27	1	93				
NEW BRUNSWICK—																								
Chatham	47	3 65	29	214	30 00	30 43	29 68	0 73	79	5	6	5	0	6	0	0	23	20	6	2	62			
Fredericton	45	57 66	36	104	30 02	30 44	29 72	0 72	76	4	3	5	5	1	5	15	22	23	16	1	93	6 7	21 10 W	
St. John's	45	17 66	4	620	30 01	29 42	29 72	0 70	82	5	11	9	2	0	3	39	26	1	7	6	93	9 8	34 23 S	
NOVA SCOTIA—																								
Halifax	44	39 63	36	28	30 04	30 38	29 67	0 71	94	5	5	4	9	0	5	5	16	12	5	0	62	10 5	40 30 SW	
Sable Island (Station)	43	57 60	6	25	30 11	30 38	29 63	0 70		5	7	2	11	7	13	21	25	3	19	1	93	7 1	15 23 NE	
Sydney	46	10 00	10	35	30 03	30 29	29 60	0 75	73	6	8	10	4	3	0	2	31	21	12	7	62	12 7	40 11 NE	
Truro	46	48 71	13	263	29 39	30 30	29 50	0 92		5	11	8	2	0	1	22	28	20	3	93	93			
Wolfville	45	7 64	20	62	30 03	30 42	29 70	0 72		4	5	5	3	2	1	17	6	3	62					
Yarmouth	43	50 66	2	65	30 07	30 42	29 70	0 65	90	5	10	4	1	0	0	18	1	6	8	11	62	8 7	31 23 SW	
P. E. ISLAND																								
Charlottetown	46	14 63	10	38	30 01	30 42	29 69	0 75	78	5	6		5	6	1	6	2	8	9	7	62	6 7	21 24 SW	
NEWFOUNDLAND																								
St. John's	47	0 55	10	27	30 05	30 38	29 68	0 70				5	1	1	3	11	21	4	14	6	62			
Fogo	49	43 34	17	50																				
Port aux Basques	47	35 59	10	27	29 39	30 31	29 57	0 73		6	14	2	2	17	4	3	11			0	62			
St. George's	48	27 58	31	21	29 39	30 31	29 57	0 74	87	7	10	2	1	11	3	3	19	6	3	0	62			
St. John's	47	31 42	42	135	29 39	30 39	29 54	0 82	81	5	7	6	5	7	5	11	26	3	3	0	62			
BERMUDA																								
Prospect	32	17 64	46	151	30 16	30 32	29 45	0 18	85	5	2	4	7	7	11	21	4	5	4	0	93			



FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF AUGUST 1913

STATION	DIRECTION OF WIND FROM								C.	Total num- ber of Observ- ations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
ALBERTA—										
Athabasca Landing.....	0	1	3	0	3	4	13	7	0	31
Didsbury.....	1	2	5	0	4	2	1	13	0	28
Endiang.....										
Halkirk (Hinsburg).....	3	9	4	11	7	5	10	13	0	62
Hillsdown.....	0	2	0	17	2	4	0	32	5	62
Loveland.....	2	10	2	6	2	20	4	15	0	62
Macleod.....	4	0	0	1	7	3	33	0	14	62
Pakan (Victoria).....										
Ranfurly (Witchfield).....	7	2	12	15	9	6	29	9	4	93
SASKATCHEWAN—										
Chaplin.....	0	1	7	2	4	1	11	3	2	31
Crescent Lake.....	1	2	3	4	5	5	6	2	3	31
Estevan.....	2	2	5	4	3	4	3	5	3	31
Fort Qu'Appelle.....	1	6	8	8	1	6	17	3	2	62
Grenfell (Brownhill).....	0	5	7	13	4	15	2	16	0	62
Indian Head.....	5	6	11	4	9	10	13	26	9	93
Larchmont (Glenbryan).....	0	7	18	1	0	8	15	12	1	62
Moosomin.....										
Muenster (St. Peter's Monastery).....	2	0	3	11	12	8	11	12	0	62
Onion Lake.....	0	2	4	6	1	1	6	11	0	31
Pense (Gatesgarth).....	0	3	1	10	1	4	1	11	0	31
Waseca.....	0	1	2	4	0	1	17	6	0	31
MANITOBA—										
Bereus River.....										
Brandon.....	0	9	7	11	0	9	10	7	28	81
Hillview.....	6	10	10	8	9	14	13	23	0	93
Moose Horn Bay (Athensville).....	5	10	4	8	6	1	7	11	10	62
Morden.....	12	4	3	5	6	10	10	6	6	62
Oak Bank.....	4	3	1	7	6	10	2	27	2	62
Stony Mountain.....	10	6	7	2	15	4	15	3	0	62
ONTARIO—										
Agincourt.....	1	1	16	14	8	17	12	23	1	93
Alton.....										
Beatrice.....	4	3	0	10	10	5	6	10	15	93
Birnam.....	6	4	5	8	14	6	5	6	8	62
Clinton.....	2	3	6	4	8	8	13	18	0	62
Cottam.....	17	0	3	8	25	5	3	1	0	62
Gravenhurst.....	7	2	11	2	4	11	1	7	4	49
North Bruce.....										
Orillia.....	5	2	0	3	10	6	4	1	0	31
Owen Sound.....										
Point Clark.....										
Port Dover.....	3	4	7	3	1	3	6	4	0	31
Stoney Creek.....	0	17	10	0	2	25	32	7	0	93
Uplands.....										
Wexford.....	1	0	3	4	0	4	0	7	12	31
QUEBEC—										
Abitibi.....	19	5	2	3	23	9	27	5	0	93
Anticosti, W. Pt.....	5	5	4	1	31	8	20	19	0	93
Anticosti, Heath Point.....	9	4	6	0	6	22	29	13	4	93
Bicquet.....	3	9	0	0	8	28	12	3	30	93
Brome.....	17	2	1	4	22	6	34	6	1	93
Cape Chatte.....	4	1	12	0	2	9	58	0	7	93
Cape Magdalen.....	2	1	0	4	20	8	10	33	15	93
Cap Rouge.....	16	3	0	0	0	1	0	11	0	31
Chicoutimi.....	1	11	5	14	1	4	14	12	31	93
Clarke City.....	2	3	11	1	0	7	5	12	0	41
Minouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	0	11	1	0	0	16	0	2	30
Moncton.....										
Pt. Lepreaux.....	6	11	1	2	8	20	16	14	0	78
Sussex.....	0	2	0	0	0	8	2	6	13	31
NOVA SCOTIA—										
Kentville.....	1	0	2	2	3	4	6	13	0	31
Parrsboro.....										
Port Hastings.....										
Sable Island, E. Pt.....										
Truro.....	8	2	0	1	22	28	20	3	9	93
Whitehead.....	13	4	3	4	15	52	1	1	0	93

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
AUGUST 1913.

STATION.	HOURS ENDING																
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria.....	.02	.33	.53	.58	.64	.74	.74	.77	.74	.77	.67	.66	.44	.63			
Salmon Arm.....	.05	.28	.56	.59	.64	.67	.70	.72	.66	.66	.68	.65	.63	.24			
Nanaimo.....	.08	.39	.56	.63	.64	.67	.70	.72	.66	.66	.68	.65	.63	.24			
Vancouver.....	.20	.51	.57	.55	.54	.59	.64	.63	.62	.64	.66	.52	.55	.27			
Agassiz.....		.34	.50	.61	.68	.63	.66	.67	.61	.57	.52	.49	.26	.01			
Tranquille.....	.24	.57	.68	.63	.66	.67	.75	.78	.76	.67	.59	.58	.53	.28			
Summerland.....	.55	.71	.71	.77	.75	.72	.71	.54	.58	.62	.57	.53	.43	.61			
Kamloops.....	.26	.47	.54	.58	.66	.67	.76	.73	.74	.66	.62	.56	.49	.24			
Harper's Ranch.....	T	.13	.37	.43	.48	.50	.61	.64	.58	.56	.57	.45	.37	.05			
Edmonton.....	.29	.47	.57	.62	.61	.57	.57	.54	.59	.67	.61	.48	.46	.21	.01		
Lethbridge.....	.42	.60	.74	.77	.81	.82	.81	.83	.85	.81	.83	.78	.68	.56	.08		
Lacombe.....	.27	.61	.84	.86	.88	.81	.90	.83	.88	.84	.81	.67	.58	.23			
Medicine Hat.....	.17	.64	.73	.78	.80	.80	.81	.82	.77	.81	.71	.81	.67	.29			
Fort Duvegan.....																	
Fort Vermilion.....																	
Battleford.....	.10	.37	.53	.62	.65	.73	.71	.69	.66	.61	.63	.61	.54	.28			
Indian Head.....	.14	.47	.60	.62	.69	.68	.72	.74	.66	.64	.64	.65	.56	.11			
Moosewa.....	.04	.49	.59	.69	.70	.71	.69	.73	.66	.67	.76	.77	.74	.65	.41	.02	
Scott.....	.03	.37	.49	.57	.60	.65	.63	.66	.58	.59	.60	.53	.52	.20			
Rosthern.....	.01	.30	.46	.51	.51	.63	.68	.63	.67	.68	.65	.67	.61	.57	.39		
Brandon.....		.18	.56	.62	.74	.77	.74	.75	.79	.73	.77	.64	.27	.05			
Winnipeg.....	.21	.49	.51	.69	.72	.70	.73	.73	.71	.67	.70	.66	.65	.29			
Haileybury.....	.26	.48	.56	.58	.53	.63	.67	.66	.66	.63	.63	.57	.61	.39	.04		
Woodstock.....	.08	.40	.63	.65	.65	.70	.68	.70	.73	.72	.71	.67	.43	.04			
Lindsay.....	.12	.53	.66	.67	.66	.68	.67	.69	.71	.72	.62	.36					
Barrie.....	.03	.49	.65	.72	.70	.74	.77	.74	.77	.74	.71	.64	.31				
Toronto.....	.05	.45	.71	.71	.74	.70	.69	.72	.73	.75	.76	.74	.66	.33			
Kinross.....	.15	.47	.57	.67	.75	.81	.77	.79	.71	.66	.66	.66	.56	.14			
Ottawa.....	.17	.46	.59	.66	.72	.72	.75	.74	.74	.68	.69	.62	.56	.25			
Montreal.....	.17	.47	.60	.63	.68	.69	.76	.67	.70	.69	.63	.59	.40	.04			
Cap Ronge.....	.16	.47	.56	.61	.60	.65	.62	.67	.67	.65	.61	.57	.48	.13			
Quebec.....	.05	.36	.49	.56	.62	.66	.60	.68	.69	.63	.64	.55	.43	.07			
Ste. Anne de la Pocatiere.....	.33	.60	.54	.57	.66	.65	.70	.62	.65	.65	.66	.61	.47	.20			
Sherbrooke.....	.16	.55	.63	.67	.64	.61	.68	.70	.68	.69	.62	.59	.50	.17			
Fredericton.....	.10	.32	.51	.66	.81	.74	.75	.68	.71	.68	.62	.52	.50	.26	.01		
Charlottetown.....	.20	.49	.52	.57	.60	.61	.68	.68	.68	.69	.65	.59	.50	.12			
Nappan.....	.02	.36	.49	.52	.59	.66	.70	.72	.68	.75	.73	.63	.55	.55			
Wolfville.....	.21	.45	.53	.65	.72	.74	.71	.70	.67	.65	.66	.58	.50	.34			
Kentville.....	.01	.32	.52	.65	.68	.74	.76	.67	.69	.64	.65	.59	.46	.22	T		

## SUMMARY OF SUNSHINE RECORDS

JULY, 1913		Victoria.	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tanquillie.	Sumnerland.	Kamloops.	Harper's Ranch.	Edmonton.	Leithbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Rosetown.	Brandon.	Winnipeg.	Halifax.	Woodstock.	Lindsay.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Sie. Anne de la Poutriere.	Shertrooke.	Fredericton.	Charlottetown.	Napan.	Wolfville.	Kentville.
Registered duration in hours.....	237	247	238	233	257	254	210	178	225	321	311	228	.....	240	246	253	235	349	235	262	241	342	220	249	271	259	259	240	231	218	247	215	244	235	240	253	238	
Percentage of possible duration....	53	65	56	51	46	58	50	40	72	69	67	.....	53	55	63	53	55	42	59	55	56	51	58	63	60	60	60	53	50	55	56	56	54	55	58	55		
Difference from average.....	5	—	7	—	3	—	—	—	—	—	—	.....	—	1	4	—	—	14	1	—	1	1	1	2	5	3	2	4	2	—	8	—	5	—	—	—		
Maximum percentage in one day....	81	68	94	92	81	94	90	94	82	94	90	89	.....	94	91	97	96	80	93	98	90	80	85	91	96	94	98	92	85	94	91	94	92	94	94	90		
Date of maximum.....	21	26	22	25	10	21	20	27	28	28	11	.....	28	28	28	22	25	28	25	19	2	20	14	11	11	7	25	19	28	20	25	19	23	19	12	1		
Number of days completely clouded.....	4	3	4	0	3	6	3	0	1	1	.....	4	2	0	5	2	0	4	2	1	1	2	1	1	1	2	1	3	3	0	0	4	4	3	1	0		

*Thunder recorded:*

1. Emsdale, Beatrice, Markdale, Cap Rouge, Mistassini, Montreal, Stonecliffe, Parry Sound, Edmonton, Campsie, Ranfurly, Springdale, Sion.
2. Kakabeka Falls, Mistassini, Sussex, Kentville, Fredericton, St. John, Wolfville, Rock Creek, Greenwood, Grand Forks, Okanagan Mission, Nicola, Nelson, Keremeos, Hydraulic, Hope, Hedley, Salmon Arm, Princeton, Tappen, Coldstream Ranch, Duck Lake Ranch, Monte Creek, Armstrong, Perry Siding, Bittern Lake, Dunstable, Pekisko, Campsie, Fauquier.
3. Rapid City, Cartwright, Westminster, Westport, Birnam, Brantford, Kingston, Qu'Appelle, Crescent Lake, Alkali Lake, Princeton, Chilliwack, Chilcotin, Crawford Bay, Pemberton Meadows, Okanagan Mission, Nicola, Nakusp, Keremeos, Hope, Salmon Arm, Summerland, Medicine Hat, Nimga, Brazaau, Beaver Lodge, Sion, Oliver.
4. Hillview, Sydney, Minnedosa, The Meadows, Lost River, Chilcotin, Crawford Bay, Okanagan Mission, Keremeos, Hedley, Salmon Arm, Tappen, Monte Creek, Armstrong, Perry Siding, Prince Albert, Calgary, Cowley, Mountain View, Dunstable, Pekisko, Battle Creek, Beaver Lodge, Clemens, Campsie, Springdale, Sion, Mayeroft, Perbeck, Okotoks, Macleod, Halkirk, Sherbrooke.
5. Nipigon, Kakabeka Falls, Port Arthur, Minnedosa, Gull Lake, Alkali Lake, Creston, Crawford Bay, Elko, Keremeos, Salmon Arm, Wilmer, Perry Siding, Medicine Hat, Banff, Beaver Mines, Cowley, Jumping Pound, Okotoks.
6. Fredericton, Qu'Appelle, Swift Current, Banff, Ft. Qu'Appelle, Lost River, Rosthern, Muenster, Saskatoon, Quesnelle, Tappen, Edmonton, Banff, Rathmullen, Kenora, Shoal Lake, Clemens, Campsie, Sion, Perbeck, Hillsdown, Hydraulic.
7. Nipigon, Winnipeg, Kindersley, Saskatoon, Prince Albert, Medicine Hat.
8. Emsdale, Brantford, Westport, Timiskaming, Ville Marie, Beatrice, Markdale, Birnam, Macdoo, Bruce Mines, Lucknow, London, Haileybury, Cochrane, Port Arthur, Manouan Crossing, Mountain View, Rutherglen, Fort St. James.
9. Princeton, Emsdale, Brantford, Georgetown, Westminster, Westport, Timiskaming, Agincourt, Stoney Creek, Renfrew, Birnam, Montague, Fredericton, Quebec, London, Stonecliffe, Kingston, Toronto, Port Stanley, Port Arthur, Wallaceburg, Port Dover, Orillia, Brantford, Clinton, Lucknow, Paris, Almonte, Cap Rouge, Shawinigan Falls, Lake Edward, Mistassini, Woodstock, Clarke City, Springdale, Sherbrooke.
10. Princeton, Georgetown, Westport, Agincourt, Birnam, Wallaceburg, Port Dover, Clinton, Lucknow, Wexford, St. Stephens, Ottawa, London, Toronto, Port Stanley, Shoal Lake, Goderich, Hydraulic.
11. Niagara Falls, Edmonton, Saskatoon, Alkali Lake, Nakusp, Bittern Lake, Shoal Lake, Beaver Lodge, Ranfurly, Springdale, Halkirk.
12. Cartwright, Invermere, Hillview, Almasippi, Swift Current, Chaplin, Crescent Lake, Muenster, St. Walburg, Rock Creek, Nakusp, Chilcotin, Crawford Bay, Elko, Nelson, Wilmer, Banff, Jumping Pound, Ranfurly, Peace River Crossing, Halkirk.
13. Hillview, Cedars, Montreal, St. Walburg, Yellow Grass, Rock Creek, Chilcotin, Elko, Tappen, Mayeroft, Clemens, Macleod.
14. Rapid City, Hillview, Brandon, Aitkensville, Oakbank, Morden, Treherne, Almasippi, Heron Bay, Winnipeg, Minnedosa, Moose Jaw, Qu'Appelle, Swift Current, Chaplin, Crescent Lake, Gatesgarth, Lost River, Saskatoon, Yellow Grass, Indian Head, Wilmer, Edmonton, Medicine Hat, Banff, Kenora, Shoal Lake, Ranfurly, Springdale, Sion, Oliver, Perbeck, Hillsdown, Halkirk, Port St. James, Divide.
15. Norquay, Chapleau, Abitibi, Mistassini, Schreiber, Stony Mountain, Cochrane, Port Arthur, Qu'Appelle, Kindersley, The Pas, Shoal Lake, Sion, Hillsdown, Halkirk.
16. Emsdale, Brantford, Georgetown, Westport, Agincourt, Renfrew, Bruce Mines, Clinton, Lucknow, Wexford, Kakabeka Falls, Aurora, Peterboro, Toronto, Parry Sound, Gull Lake, Chilliwack, Keremeos, Beaver Mines, Mountain View, Rutherglen, Clarke City, Hydraulic, Fort St. James.
17. Brantford, Westport, Perkins Mills, Hillview, Agincourt, Renfrew, Montague, Port Dover, Brantford, Almonte, Mistassini, White Shore Lake, Kingston, Toronto, Swift Current, The Meadows, Rock Creek, Elko, Golden, Okanagan Mission, Nakusp, Salmon Arm, Tappen, Duck Lake Ranch, Armstrong, Perry Siding, Brooks, Cowley, Shoal Lake, Clemens, Brooks, Halkirk.
18. Norquay, Rapid City, Hillview, Ottawa, Yarmouth, Moose Jaw, Qu'Appelle, Chaplin, Crescent Lake, Ft. Qu'Appelle, Gatesgarth, Kindersley, Lost River, Rosthern, Muenster, Saskatoon, Yellow Grass, Chilcotin, Medicine Hat, Brooks, Dunstable, Rathmullen, Shoal Lake, Clarke City, Oliver, Hillsdown, Halkirk.

19. Norquay, Cartwright, Hillview, Brandon, Aitkensville, Morden, Treherne, Almasippi, Winnipeg, Minnedosa, Qu'Appelle, Crescent Lake, Chilcotin, Edmonton, Shoal Lake, Springdale, Halkirk.

20. Norquay, Cartwright, Nipigon, Aitkensville, Morden, Treherne, Almasippi, Winnipeg, Minnedosa, Indian Head, The Pas, Kenora, Shoal Lake.

21. Princeton, Emsdale, Birnam, Bruce Mines, Clinton, Lucknow, Paris, Kakabeka Falls, London, Port Stanley, Port Arthur, Manouar Crossing, Shoal Lake.

22. Emsdale, Brantford, Deer Park, Georgetown, Wiarton, Agincourt, Beatrice, Markdale, Birnam, Wallaceburg, Orillia, Brantford, Madoc, Clinton, Lucknow, Peterboro, Lindsay, Haileybury, Stonecliffe, Toronto, Port Stanley, Parry Sound, Cochrane, Banff, Lost River, Coquitlam, Little Qualicum, Chilliwack, Departure Bay, Pemberton Meadows, New Westminster, Hope, Princeton, Ladysmith, Vancouver, Rutherglen, Goderich.

23. Bruce Mines, Wexford, Kakabeka Falls, Peterboro, Almonte, Cedars, White River, Port Arthur, North Nicomen, Edmonton, Vermillion, Ranfurly, Springdale.

24. Westport, Montague, Madoc, Cedars, Charlottetown, Montreal, Kingston, Crescent Lake, Dunstable, Shoal Lake.

25. Westport, Quinze Dam, Schreiber, White River, Crawford Bay, Shoal Lake, Sion.

26. Emsdale, Brantford, Beatrice, Renfrew, Birnam, Montague, Brantford, Madoc, Bloomfield, Lucknow, Wexford, Peterboro, Montreal, Lindsay, Haileybury, Kingston, Parry Sound, Lost River, Rosthern, Dunstable, Kenora, Rutherglen, Alix, Campsie, Springdale, Sion, Perbeck, Hillsdown, Halkirk.

27. Aitkensville, Treherne, Paris, Kertville, St. John, Yarmouth, Winnipeg, Crescent Lake, Kindersley, Prince Albert, The Pas, Shoal Lake.

28. Princeton, Brantford, Georgetown, Niagara Falls, Wiarton, Westminster, Westport, Oakbank, Agincourt, Stoney Creek, Birnam, Heron Bay, Port Dover, Brantford, Madoc, Bruce Mines, Bloomfield, Charlottetown, Woodstock, Halifax, Sydney, Schreiber, Truro, London, Toronto, Port Stanley, White River, Port Arthur, Shoal Lake, Rutherglen.

29. Westport, Beatrice, Renfrew, Ronville, Montague, Madoc, Norwood, Almonte, White Shore Lake, St. Stephens, Kingston, Toronto, Quesnel, Springdale, Hillsdown.

30. Aitkensville, Fredericton, St. John, Banff, Brooks, Clarke City, Macleod, Hillsdown, Hamilton, Halkirk, Hydraulic.

31. Hillview, Aitkensville, Moose Jaw, Qu'Appelle, Crescent Lake, Gatesgarth, Lost River, Saskatoon, Invermere, Wilmer, The Pas, Calgary, Banff, Bittern Lake, Bismark, Cowley, Rathmullen, Shoal Lake, Ranfurly, Springdale, Oliver.

*Auroras recorded:*

- 1.
- 2.
- 3.
- 4.
- 5.
6. Sion III.
- 7.
- 8.
9. Beaver Lodge IV.
10. Haileybury IV, Waseca, Clemens, Ranfurly III, Hillsdown IV, Halkirk.
11. Edmonton, Clemens.
12. Chicoutimi, The Pas.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
24. Waseca.
25. Aweme IV.
- 26.
- 27.
- 28.
- 29.
30. Cape Magdaleine.
- 31.

## FORECASTS FOR AUGUST 1913

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of these predictions issued during the month was 1257. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	82	63	13	6	84.7
Saskatchewan.....	81	62	11	8	83.3
Manitoba.....	83	66	11	6	86.1
Lake Superior.....	120	85	21	14	79.6
Lower Lake Region.....	125	102	15	8	87.6
Georgian Bay.....	125	105	8	12	87.2
Ottawa Valley.....	93	76	8	9	86.0
Upper St. Lawrence.....	92	79	4	9	88.0
Lower St. Lawrence.....	105	82	9	14	82.4
Gulf.....	115	84	11	20	77.8
Maritime Provinces West.....	118	96	18	4	89.0
Maritime Provinces East.....	118	98	15	5	89.4
Total.....	1257	998	144	115	85.1

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,  
Sept. 29th, 1913.





DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

SEPTEMBER, 1913

No. 9

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## INTRODUCTION.

In compiling the present Review, the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

The prevailing difference from average temperature was negative and about  $1^{\circ}$ . Temperature conditions were most nearly normal in the district about the North Thompson River.

The extreme lowest temperature recorded on Vancouver Island and along the Lower Fraser averaged  $40^{\circ}$  for twenty-two stations. In the Okanagan Valley and the Kootenays, the extreme lowest temperature averaged  $31^{\circ}$  for twenty-three stations; and along the North Thompson River  $32^{\circ}$  for nine stations. These lowest temperatures were recorded on the 9th, 19th or 24th in most instances.

In the Kootenays and the Okanagan Valley the highest temperatures at several stations reached or exceeded  $80^{\circ}$ .

### WESTERN PROVINCES.

The first eighteen days were warm, maximum temperatures exceeding  $80^{\circ}$  being recorded on from two to four days during that time. The remainder of the month was much cooler, with sharp night frosts, but on the 29th there was a sudden change to warm weather again, the maximum temperatures on that day exceeding  $80^{\circ}$  in many parts of the country. The mean temperature for the month was  $2^{\circ}$  to  $4^{\circ}$  above normal in Alberta and Saskatchewan, and from  $1^{\circ}$  to less than  $3^{\circ}$  above in Manitoba, but there were local exceptions in Manitoba.

### ONTARIO.

In the east central counties and in the district between the Upper St. Lawrence and Ottawa Rivers, there were a few stations which showed a mean temperature slightly above average, but throughout Ontario as a whole the month was cooler than normal by from  $1^{\circ}$  to  $4^{\circ}$ .

The month began with temperatures exceeding  $80^{\circ}$ , but from the 13th to the 24th there was a period of much cooler weather, with sharp night frosts in many sections of the country. During

the last week temperatures became much higher again, but the month ended with frost on the morning of the 30th in the northern sections.

#### QUEBEC.

The first week was the warmest, temperatures of 80° having been recorded on two or three days, but the latter half of the month was quite cool. Mean temperatures were from 1° to 2° below average throughout the province.

#### MARITIME PROVINCES.

Mean temperatures were from 1° to 3° below average. Remarkably high temperatures were recorded on the 2nd, 3rd, and 4th, ranging between 80° and 90° at many stations.

#### PRECIPITATION.

##### BRITISH COLUMBIA.

The rainfall was heavier than average on Vancouver Island, along the North Coast and on the Queen Charlotte Islands, and along the Lower Fraser, except at the mouth. In parts of Vancouver Island and in the vicinity of Harrison Lake, on the Lower Fraser, it was exceptionally heavy.

At the mouth of the Fraser, on Burrard Inlet, in the Okanagan Valley, and along the Thompson River, less than normal rainfall was registered.

In the West Kootenay the rainfall was about two and a quarter inches, in some cases exceeding three. In the East Kootenay it was about one inch.

##### WESTERN PROVINCES.

In nearly all districts the precipitation was less than normal, and was recorded on from one to eight days in Alberta and Saskatchewan, and from one to eleven days in Manitoba. By far the greatest portion of the whole precipitation was recorded on one day, which was either the 18th or 24th.

##### ONTARIO.

Precipitation was everywhere considerably below normal. In the southern portion of the province it occurred on remarkably few days, at some stations on only two or three days.

#### QUEBEC.

Locally, along the Middle St. Lawrence and in the Northwest districts, the amount of precipitation was slightly in excess of normal; but over the greater area of the province there was a deficiency.

#### MARITIME PROVINCES.

Except on Cape Breton Island, there was a deficiency.

#### HIGH AREAS.

Seven areas of high pressure were charted. Three first appeared on the British Columbian coast line, two in the North Pacific States, and two in the neighborhood of Manitoba.

The general path of the areas was over or to the northward of the Great Lakes, thence either to the Maritime Provinces or the New England States, and thence out to sea. The system which appeared in the North Pacific States on the 9th caused, as it passed over the Peninsula of Ontario on the 14th, the first frost of the season there, which, in some districts, was sufficiently severe to injure tender vegetation.

#### LOW AREAS.

Twelve areas of low pressure were sufficiently defined to allow of their paths being approximately charted. Three first appeared near the Alaskan coast, three on the coast line of Northern British Columbia, one in the interior of British Columbia, one in Northern Alberta, one in the Western States, one on the Texan coast, one off the South Atlantic Coast, and one on the east coasts of

the Maritime Provinces. The general course of the areas was either over or far to the northward of the Great Lakes, and, with the exception of several of the systems from the far northwest, which were somewhat energetic as they passed over or in the vicinity of the Western Provinces, they were mostly of feeble intensity, and, as a result, the winds in Canada seldom reached the force of a strong breeze, while only a few local gales were experienced.

#### ATMOSPHERIC PRESSURE.

From the results obtained at the Telegraph Reporting Stations it is apparent that the atmospheric pressure during September was above the normal throughout the greater part of Canada. In some districts in Southern Alberta and Southern Saskatchewan, however, the normal mean value was not attained. Departures from the normal value were in excess of 0.05 of an inch from Manitoba to the Maritime Provinces, and reached 0.10 of an inch in parts of Ontario, Quebec, and New Brunswick.

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on Sept. 4th, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—737 mm.

Temperature = 24.0° C.

Direction of Flight at Beginning—South-west in fresh wind.

Feil—135 km. distant S. 40° E.

Maximum Height—17.6 km.

Minimum Temperature = -72.5° C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	737	24.0	
0.5	718	22.5	
1.0	677	21.5	20.5
1.5	639	18.0	17.0
2.0	602	16.0	14.0
2.5	567	12.0	10.5
3.0	533	7.0	6.0
3.5	501	4.5	3.5
4.0	470	0.0	- 1.0
4.2	458		- 1.0
4.5	441		- 2.5
4.8	424	- 3.5	- 5.0
5.0	414	- 4.5	- 5.0
5.5	388		- 8.0
6.0	363	- 7.0	-10.0
6.5	342	-10.5	-13.5
7.0	319	-14.5	-18.5
7.5	299	-18.5	-21.0
8.0	278	-22.0	-25.0
8.5	260	-25.5	-28.0
9.0	243	-29.5	-31.5
9.5	227	-34.0	-35.5
10.0	212	-37.5	-40.0
11.0	182	-46.9	-49.0
12.0	156	-55.0	-56.5
13.0	133	-61.5	-62.5
14.0	113		-67.5
14.7	99		-72.0
15.0	94.5		-71.5
16.0	80.0		-71.5
16.8	70.0		-72.5
17.0	67.4		-72.0
17.6	61.0		-67.0

An area of high pressure covered the whole of Ontario and adjoining country, giving moderate northerly to north-easterly winds.

## WINDS, SEPTEMBER, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION.
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	6533	454							
Prince Rupert.....									
Victoria.....	4622	523	37	W	21	1	7	9	SW, W
Point Garry.....	5991	451	37			3	6	8	N, NW
Vancouver.....									
Kamloops.....	2737	275	17	S	4			4	
ALBERTA.									
Edmonton.....	* 3241	252	22	NW	9		3	6	W
Calgary.....									
SASKATCHEWAN.									
Battleford.....	7125	526	41	SE	21	4	12	7	SE
Prince Albert.....	8509	550	30	SW	10	1	14	6	SW
Swift Current.....	7695	489	34	NW	13	2	12	9	SW
Qu'Appelle.....									
MANITOBA.									
The Pas.....	7261	575	31	SW	10				W
Winnipeg.....	8006	548	37	SE	9	2	9	12	SE
ONTARIO.									
Port Arthur.....	6110	932	62	NW	21	2	5	12	SE
White River.....									
Cochran.....	\$ 3837	303	21	W	7		1	12	S
Parry Sound.....	5572	350	20	SE	20		1	18	SE
Souhampton.....									
Pelee Island.....	9621	705	37	N	7	7	10	6	
Woodstock.....	£ 5131	338	24	NW	13		4	11	SW
Guelph.....	6320	369							SE
Toronto.....	7922	505	29	NW	13		15	11	E
Kingston.....	c 6112	433	25	S	7		7	16	SW
Stonecliffe.....	2760	183	15	NW	4			4	
Ottawa.....									
QUEBEC.									
Montreal.....	8402	427	26	W	26		12	11	S, SW
Sherbrooke.....									
Quebec.....	7889	634	38	NE	22	3	10	13	SW
Father Point.....	8468	674	35	W	26	3	14	11	W
Anticosti, SW.....	10310	720	42	NW	28	7	12	8	SE, NW
Harriington.....	10287	635	45		13	3	18	7	W
NEW BRUNSWICK									
Pt. Escuminac.....	10671	782	49	NW	27	8	10	10	NW
Fredericton.....	5041	392	20	W	14		2	15	W
St. John.....	7679	448	27						SW
Pt. Lepreaux.....	7692	426	34	NW	28	2	5	20	W
NOVA SCOTIA									
Yarmouth.....	6534	441	30	SE, E	22-23	2	8	11	N
Wolfville.....									
Halifax.....	7382	443	28	NE	10		10	16	N, W
Sable Island.....									
Fiat Point.....	10909	933	48	NE	9	7	10	8	W
PRINCE EDWARD ISLAND									
Charlottetown.....	4922	339	20	SE	23		2	14	NW

\* 27 days record.    \$ 22 days record    £ 27 days record.    c 29 days record.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. SEPT., 1913.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.						
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.
BRITISH COLUMBIA.																	
S. Vancouver Island.																	
Alberni (Beverly Creek)	49 15	124 49	300	55.6	- 2.2	18	79.0	24	33.0	22-24	23.7	6.43	+3.48	2.11	13	17	2
Chayquoit	49 11	125 55	27	54.9	+ 1.0	14	70.0	25	43.0	23	13.3	9.90	+ 84	2.16	14	16	..
Cloose	..	..	..	51.1	..	..	68.0	20	40.0	21	13.1	7.77	..	1.80	10	20	..
Cowichan (Touhalem)	48 25	123 42	170	55.7	..	..	73.8	12	35.0	23	19.4	1.93	..	0.64	12	18	..
Departure Bay	..	..	..	55.1	..	..	72.0	12	41.3	6-7	15.7	2.30	..	0.63	9	21	..
Colliis Bay	..	..	..	53.6	..	..	73.0	12	41.0	6-23	18.0	3.84	..	1.15	13	17	..
Lady Smith	..	..	..	54.4	..	..	71.0	11-12	39.0	22-23	19.0	2.86	..	0.99	13	17	..
Nanaimo	49 10	123 37	125	56.1	- 1.1	13	70.8	1	41.8	19	13.4	2.18	+0.15	0.59	10	20	..
Nanaimo Bay	49 17	124 12	130	54.2	- 0.1	13	71.0	12	37.0	23	15.6	2.85	..	0.96	13	17	..
Salt Spring Island	48 50	123 20	..	54.9	..	..	72.0	12	41.0	6	16.2	2.08	..	0.77	11	19	1
Shawinigan Lake	..	..	..	55.2	..	..	73.0	8-26	37.0	11-25	21.0	1.98	..	0.82	11	19	..
Sooke	48 41	123 44	25	54.9	..	..	73.0	11	35.0	19	18.9	3.11	..	0.90	16	20	..
Victoria	48 24	123 19	55	56.6	0.0	21	71.1	20	41.5	30	16.8	1.95	+0.27	1.07	8	22	1
Vancouver Island.																	
Holberg	50 30	128 18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Quinsam	50 32	127 40	..	52.9	- 0.4	19	70.0	25	40.0	20-25	14.7	10.69	+4.52	1.51	20	10	..
Swanson Bay	50 37	126 53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Triangle Island	50 62	129 5	680	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lower Fraser River.																	
Agassiz	49 14	121 31	52	56.5	- 0.5	23	78.0	13	40.0	15-23	23.0	7.58	-3.05	2.12	13	17	..
Chilliwack	49 10	121 57	51	55.8	- 1.3	11	79.0	12	37.0	19	20.4	6.35	+4.11	2.52	13	17	2
Chilliwack	49 24	121 25	500	56.4	..	..	77.0	12	40.0	23	19.2	6.77	..	2.22	..	..	..
Hopli	49 05	123 4	..	55.6	+ 1.0	12	70.0	12-16	36.0	23-25	17.9	1.90	-0.64	0.40	7	23	..
Ladner	49 13	122 64	330	57.1	- 0.7	26	74.6	12	41.3	24	17.9	3.09	+0.83	0.57	13	17	2
New Westminster	49 12	122 2	59	57.9	+ 0.7	21	78.0	12	42.0	23-39	18.9	8.50	+3.87	2.68	11	19	..
North Nicome	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pemberton Hatchery	50 20	122 53	..	51.3	..	..	71.0	15	32.0	23-24	22.2	1.64	..	1.19	12	18	3
Pemberton Meadows	..	..	..	56.1	..	..	76.0	13	39.0	24	19.7	5.81	..	1.81	14	16	1
Ruskin (Slave Falls)	49 16	122 23	125	56.1	..	..	76.0	13	39.0	24	19.7	5.81	..	1.81	14	16	1
Steveston (Garry Point)	49 21	123 17	..	52.9	- 0.8	18	71.0	17	34.0	24	17.6	2.47	-0.07	0.57	11	19	..
Vancouver	49 17	123 5	136	55.5	- 0.2	13	71.0	16	40.8	23	15.0	3.89	-0.43	0.92	15	17	..
Upper Fraser River.																	
Babine Lake	55 38	121 35	..	46.7	..	..	66.0	25	29.0	24	20.6	1.20	..	0.90	6	24	..
Barkerville	51 40	123 0	3100	46.7	- 1.7	25	62.0	12	28.0	1-23	19.4	4.98	+2.32	0.97	14	..	..
Chilcoot (Big Creek)	51 40	123 0	3100	46.4	- 1.6	10	72.0	12	24.0	10	28.1	0.79	-1.45	0.66	3	27	1
Fort George	..	..	..	50.6	..	..	71.0	11-12	31.0	1-23	25.3	3.50	..	0.72	16	14	..
Fort St. James (Stuarts Lake)	54 28	124 12	2280	46.9	..	..	66.5	12	26.0	1	22.4	3.51	+2.38	0.64	14	16	1
Hydroule	51 2	..	..	51.2	..	..	77.0	12	31.0	23-24	26.0	2.46	..	0.66	11	19	1
Quesnelle	52 50	122 30	1700	49.0	- 2.8	18	73.0	12	33.0	10-28	23.1	1.51	-0.27	0.34	8	22	..
Okanagan Valley.																	
Duck Lake Ranch	50 3	119 20	1490	55.3	..	1	83.0	16-17	34.0	18	27.8	0.99	..	0.45	5	25	..
Hedley	49 35	120 10	1771	56.6	..	..	87.0	17	34.0	22	29.2	0.32	-0.36	0.13	4	26	..
Hedley (Nickel Plate)	..	..	..	53.1	..	..	71.6	15	24.0	23	24.9	0.45	..	0.35	2	28	..
Kelowna	49 15	119 29	1200	53.9	..	..	79.0	12	40.0	10	24.0	0.96	..	0.41	5	27	..
Kelowna (Okanagan Mission)	49 15	119 29	1200	53.9	- 1.1	14	79.0	15	32.0	23	25.2	0.28	-0.92	0.10	5	25	2
Penticton	49 29	119 35	..	51.8	..	..	82.0	16	34.0	23	28.2	0.38	..	0.11	7	23	..
Princeton	49 29	120 29	1650	51.9	- 1.0	19	81.0	12	21.0	26-30	30.1	0.52	-0.30	0.31	6	24	1
Reboulville	..	..	..	50.6	..	..	79.0	12	24.0	23	31.9	1.15	..	0.48	5	25	..
Summerland	49 36	119 40	1165	55.8	..	..	79.0	17	35.0	20	25.2	0.26	..	0.16	2	28	..
Vernon (Coldstream Ranch)	50 14	119 15	1582	55.1	- 0.2	20	79.0	16	35.0	19	25.5	1.33	-0.06	0.46	7	23	..
West Kootenay.																	
Crawford Bay	19 45	116 45	2000	53.0	..	4	73.0	17	35.0	19-23	23.4	2.56	..	1.29	4	26	1
Creston	..	..	..	51.3	..	..	79.0	17	30.5	9	27.9	1.32	..	0.64	7	23	..
Grand Forks	49 2	118 27	1746	53.9	..	3	80.0	16	29.0	10	32.5	1.18	..	0.48	7	23	..
Greenwood	49 1	118 6	2400	52.9	..	12	84.0	15	25.0	9-23	39.4	1.84	..	0.96	5	25	2
Huswac	..	..	..	53.3	..	..	72.0	12	39.0	23-25	20.3	3.62	..	0.84	11	19	..
Kaslo	49 52	117 0	1752	51.6	..	..	69.0	4	34.0	24	21.1	3.33	..	1.35	8	22	..
Nakusp	..	..	..	51.2	..	..	72.0	8	31.5	24	22.1	2.89	..	0.88	11	19	..
Nelson	49 29	117 21	1760	51.5	- 0.9	11	73.0	7-12	35.0	19	26.5	3.17	+1.40	1.40	7	23	1
Pond d'Oreille (Waneta)	..	..	2240	51.2	..	..	79.5	18	30.5	24	32.7	1.69	..	1.16	4	26	..
Perry Siding	49 5	117 48	1700	53.7	..	..	80.0	8-16	39.0	23-24	29.3	1.77	..	0.94	9	21	..
Rossland	..	..	..	53.5	..	..	93.5	17	34.5	10	19.5	1.19	..	0.93	3	27	3
East Kootenay.																	
Cranbrook	49 30	115 50	..	51.9	..	5	80.0	17	24.0	24	36.1	0.81	..	0.34	6	24	..
Elko (Fruitlands)	49 1	115 5	2684	56.4	+ 2.4	16	83.0	13	29.0	24	28.1	0.78	-0.68	0.25	6	25	1
Invermere	50 30	116	2650	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Winser	50 34	116 14	..	50.6	..	4	72.0	14-18	30.0	24	23.7	1.78	..	1.02	4	26	2
Thompson River.																	
Armstrong	..	..	..	52.9	..	1	77.0	17	25.0	23	32.3	0.90	..	0.41	4	26	2
Ashcroft	50 32	119 7	1180	54.0	..	..	77.0	12-16	30.0	..	..	1.35	-0.30	0.53	9	21	..
Enderville	..	..	..	54.0	- 0.4	10	78.0	12	32.0	9-20	28.7	0.43	..	0.28	2	28	..
Harper's Ranch	50 41	120 29	1245	51.4	..	..	78.0	12	32.0	9-20	28.7	0.43	..	0.28	2	28	..
Kamloops	50 9	120 39	2120	58.4	+ 0.4	21	82.0	27	36.0	10-24	25.5	0.48	-0.51	0.30	4	20	..
Monte Creek	..	..	..	50.6	..	..	81.0	4-16	29.0	9	30.2	0.18	..	0.18	2	28	1
Nicola Lake	50 42	119 35	1152	53.5	+ 0.8	17	75.0	13	32.0	19	23.6	0.73	-0.22	0.60	3	27	..
Salmon Arm	..	..	..	58	..	..	76.0	12	32.0	24	26.3	1.31	-0.37	0.77	6	24	2
Salmon Arm (Exp. Farm)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tappen	..	..	1350	55.5	..	1	80.0	27	32.0	10-19	29.1	1					
Tranquillo	50 41	120 23	..	52.1	..	5	75.0	12-27	32.0	10-19	29.1	0.61	..	0.69	6	24	2
..	51 36	119 33	1450	52.8	..	1	77.0	9	29.0	23	28.6	1.76	..	0.40	11	19	3
North Columbia River.																	
Fauquier	..	..	..	52.2	..	1	74.0	1	31.0	23	34.6	2.16	..	0.80	7	23	..
Gleichen	51 14	117 29	4672	44.0	- 2.1	10	85.0	9	29.0	23	29.9	0.32	+4.18	0.78	12	18	..
Glenora	51 0	118 6	1474	58.4	- 1.4	12	70.0	8	28.0	24	26.0	-3.25	+1.82	1.75	8	22	1
Revelstoke	51 16	116 5	2550	43.4	+ 0.5	1	77.0	1	31.0	24	21.2	2.26	-0.11	1.32	13	17	..



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPT., 1913.

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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE					PRECIPITATION					Days with 0.1 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.					
BRITISH COLUMBIA—Con.																		
North Coast																		
Bella Coola.....	52 40	126 51	150	52.7	- 0.2	15	70.0	12	39.0	23-25	13.5	8.11	+4.0	2.29	20	10	...	...
Khutda River.....	54 18	130 18	170	53.3	—	1	70.0	25	43.0	27	8.9	13.74	—	1.54	26	4	...	...
Prince Rupert.....	56 1	130 1	215	48.9	—	3	60.0	2-24	34.0	23	10.9	10.87	—	2.15	23	7	...	...
Stewart.....	56 1	130 1	215	48.9	—	3	60.0	2-24	34.0	23	10.9	10.87	—	2.15	23	7	...	...
Terrace.....	54 30	128 30	545	54.6	—	1	80.0	23	40.0	23	16.1	5.23	—	1.18	19	11	...	1
Queen Charlotte Islands																		
Ikeda Bay.....	52 17	131 7	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Masset.....	53 55	132 9	10	50.6	- 2.9	16	61.0	26	39.0	15	12.2	6.52	+2.69	1.15	23	7	...	...
Yukon Boundary																		
Atlin.....	69 35	133 38	2240	43.8	—	7	55.5	26-26	29.0	2	11.5	1.16	—	0.19	14	16	...	1
YUKON—																		
Carcross.....	60 11	134 34	2171	46.3	—	7	68.0	8	21.0	2	19.4	1.30	—	0.4	5	25	...	...
Dawson.....	64 4	139 29	1200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MACKENZIE—																		
Ft. Resolution.....	61 0	113 0	800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ALBERTA—																		
N. Saskatchewan River																		
Campsie.....	51 8	114 42	...	48.4	—	2	76.5	26	20.4	23	30.7	0.69	—	0.45	4	26	3	1 8
Coronation.....	51 7	114 17	...	51.7	—	1	85.0	9	29.0	23	37.3	—	—	—	—	—	—	—
Daysland.....	53 52	112 17	...	51.0	—	3	80.0	8-23	17.0	23	31.5	0.62	—	0.38	3	27	...	...
Edmonton.....	53 33	117 30	2158	52.5	+ 2.2	30	78.0	26	27.0	23	26.6	0.50	-1.00	0.27	6	24	4	1
Endiag.....	52 0	112 0	2795	52.0	—	3	83.0	8	24.2	22	28.1	0.52	—	0.52	1	28	...	...
Halifax (Einsburg).....	52 17	112 10	...	50.1	—	6	81.0	8	22.0	23	27.4	0.79	—	0.78	2	28	8	...
Lloydminster.....	52 30	111 59	...	53.2	—	5	86.0	8	21.0	23	31.8	0.65	—	0.45	3	27	...	...
Loveland.....	54 0	112 31	...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pelko (Victoria).....	53 29	111 33	2000	51.8	—	8	80.2	28	22.0	23	29.3	1.20	—	0.64	6	24	8	3
Ranfurly (Waitefield).....	53 54	114 15	...	48.1	—	2	72.0	12-26	20.0	23	36.0	0.80	—	0.52	6	24	6	1
Sion.....	53 54	114 15	...	52.0	—	1	84.0	8	25.0	23	29.5	1.22	—	0.64	4	26	...	...
Vermilion.....	52 55	113 23	2480	53.1	+ 3.1	11	80.0	27	22.0	22	32.3	1.25	-0.12	0.75	3	27	1	...
Wetaskiwin.....	52 55	113 23	2480	53.1	+ 3.1	11	80.0	27	22.0	22	32.3	1.25	-0.12	0.75	3	27	1	...
The Red Deer River																		
Alt.....	52 24	113 10	...	52.5	—	8	82.0	29	25.0	22-24	31.2	0.28	—	0.22	3	27	...	1
Clemens.....	51 38	112 25	...	54.8	—	1	86.7	8	24	22	28.8	0.31	—	0.18	2	25	...	...
Delia.....	51 38	112 25	...	52.5	+ 2.0	11	80.0	8	32.0	7-31	17.4	0.34	-1.40	0.17	3	27	...	...
Disbury.....	51 40	114 8	...	49.0	—	6	79.0	9	22.0	4	14	0.30	—	0.15	5	25	...	...
Hartmann.....	51 45	114 23	3500	51.6	—	9	78.5	8	26.0	1	2.3	0.13	—	0.22	6	24	5	1
Hillsdown.....	52 14	113 29	2940	51.6	—	6	80.2	8-27	24.4	23	32.9	0.79	—	0.34	4	26	...	...
Lacombe (Ex. Farm).....	52 68	113 44	2783	51.0	—	1	84.5	8	22.5	23	31.7	1.19	—	0.42	6	25	...	...
Perbeck.....	52 18	113 49	...	51.6	—	1	84.5	8	22.5	23	31.7	1.19	—	0.42	6	25	...	...
Red Deer.....	52 18	113 49	...	47.7	—	1	74.2	17	22.5	22	31.7	1.19	—	0.51	6	24	...	2
Springdale.....	52 18	113 49	...	47.7	—	1	74.2	17	22.5	22	31.7	1.19	—	0.51	6	24	...	2
The Bow River																		
Brooks.....	50 34	111 54	...	53.7	—	2	86.0	9	29.0	21-23	31.2	0.61	—	0.61	1	29	...	...
Calgary.....	51 2	114 2	3427	55.0	+ 4.5	29	84.1	8	30.0	7-23	31.1	0.87	-0.37	0.64	3	...	...	...
Cardston.....	49 12	113 18	...	52.7	+ 2.5	11	81.0	12	30.0	21-26	31.0	1.26	+0.56	0.76	2	28	...	...
Gleichen.....	50 59	112 51	2952	50.3	—	7	75.0	29	30.0	20-21	31.1	1.32	—	0.56	4	26	...	...
High River.....	50 37	113 53	3394	50.3	—	7	75.0	29	30.0	20-21	31.1	1.32	—	0.56	4	26	...	...
Lawrence (Parkland).....	50 19	113 26	3540	50.3	—	7	75.0	29	30.0	20-21	31.1	1.32	—	0.56	4	26	...	...
Lethbridge.....	49 42	112 51	2961	54.9	—	6	89.2	2	2	...	...	1.75	—	0.78	...	...	...	...
Lethbridge (Exp. Farm).....	49 43	112 51	...	47.6	—	2	71.0	11	21.0	...	...	0.60	—	0.41	...	...	...	...
Lundbreck.....	49 44	113 24	3128	56.6	+ 3.6	19	90.1	5	26.0	...	...	0.79	-0.61	0.28	...	...	...	...
Meadow.....	50 1	110 37	2143	60.4	+ 4.5	29	88.0	4	30.0	29-31	31.0	0.80	-0.51	0.60	4	26	...	...
Medicine Hat.....	50 1	110 37	2143	60.4	+ 4.5	29	88.0	4	30.0	29-31	31.0	0.80	-0.51	0.60	4	26	...	...
Okotoks.....	50 3	113 0	2350	—	—	1	87.0	9	...	...	...	0.23	—	0.11	4	26	...	...
Roseland.....	50 3	113 0	2350	51.5	—	2	86.5	5	...	...	...	0.76	—	0.11	2	28	...	...
Strathmore.....	50 6	112 34	...	53.2	—	1	88.0	8	...	...	...	0.77	—	0.11	2	28	...	...
Suffield.....	50 6	112 34	...	53.0	—	3	88.0	8	...	...	...	0.77	—	0.11	2	28	...	...
Sundial.....	50 6	112 34	...	53.0	—	3	88.0	8	...	...	...	0.77	—	0.11	2	28	...	...
Rocky Mountains																		
Banff.....	51 1	115 74	4542	48.1	+ 1.7	17	79.0	1	...	...	...	0.60	-0.47	0.17	2	28	...	1
Brzeau Forest (Cal Spat).....	49 40	114 30	4225	43.6	—	1	50.0	1	...	...	...	0.14	—	0.14	...	...	...	...
Athabasca River																		
Athabasca Landing.....	54 4	113 17	1650	50.4	+ 3.4	11	76.1	12-27	...	...	...	0.60	-0.47	0.17	2	28	...	...
Lanfford.....	54 37	114 19	...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pembina.....	54 12	114 0	...	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Peace River																		
Beaver Lodge.....	55 20	119 24	...	48.1	—	6	76.0	27	...	...	...	1.55	—	0.77	8	21	3	2
Convection.....	55 56	118 35	1305	...	—	—	—	—	...	...	...	1.80	—	0.87	6	21	4	...
Fort Vermilion.....	55 27	118 3	...	41.9	—	8	71.0	...	...	...	...	3.16	—	1.07	6	21	3	...
Fort Vermilion (2).....	...	...	...	42.8	—	1	70.0	27	...	...	...	1.83	—	0.77	6	21	3	...
Jessie Prairie.....	54 15	117 15	...	50.8	—	6	77.0	29	28.0	...	...	0.77	—	0.27	4	26	...	...
Peace River Crossing.....	54 40	118 47	2400	...	—	—	—	—	...	...	...	...	—	...	...	...	...	...



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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.				Days with 50 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.					
SASKATCHEWAN—																			
Qu'Appelle River																			
Broadview	50 23	102 33	1960																
Brownhill (Greenfield P.O.)	50 23	102 33	1957	53.9	+ 3.4	12	93.0	5	24.0	25	30.4	1.50	-0.07	0.58	5	25			
Brownlee	50 43	106 0																	
Buelhaan				50.8		9	81.4	6	25.2	22	27.5	1.23		0.60	4	26	2	1	
Crescent Lake	50 50	102 23	1658	54.6	+ 1.9	13	89.0	5	30.0	19	27.1	1.62	+0.27	0.60	4	26			
Eaton	49 12	103 4	1858	55.2		13	92.2	5	23.0	25	32.3	0.45		0.27	6	24			
Fort Qu'Appelle																			
Hubbard (Drumague)	51 5	103 24		48.2		5	84.0	5	25.0	11	31.6	0.81		0.65	5	25			
Humboldt	52 43	105 3		53.9		8	88.0	4-5	25.0	19	31.7	0.44		0.44	1	29			
Imperial	51 22	105 23		53.3	+ 2.0	24	88.0	5	26.0	21	27.0	0.55	-1.22	0.22	4	26			
Indian Head	50 28	103 40	1024	51.1		2	89.0	5	21.0	19-20	26.1	0.60		0.40	5	25			
Kamsack																			
Manor	49 43	102 5	2004																
Moore Jay	50 21	105 35	1759	56.0	+ 5.2	18	89.0	4	21.0	25	32.0	0.31	-0.65	0.15	4	26			
Moosomin	50 0	101 37	1884	48.5	- 1.5	11	88.0	4-5	21.0	20	32.9	1.32	-0.57	0.49	4	26			
Monaster (St. Peter's Mon.)	52 0	105 0	1870	50.5		7	89.0	4-5	26.0	20	23.0	1.29		0.32	6	24	3	2	
Pilger	52 25	105 9		50.2		1	84.0	4	26.0	25	27.9	0.78		0.60	7	23			
Ponse (Gatesgarth)	50 20	105 0	1879	54.4	+ 0.9	16	89.0	4	25.0	19	30.7	0.61	-0.79	0.21	5	25			
Qu'Appelle	50 30	103 47	2115	44.0	+ 2.4	29	86.0	5	27.0	25	26.8	1.14	-0.58	0.35	6	24			
Quill Lake	52 4	104 14	1950																
Regina	50 27	104 37	1855	53.6	+ 3.0	25	88.0	4	26.0	21	27.9	0.47	-0.54	0.27	5	25			
Strongfield																			
Strasbourg	51 5	104 57		57.2		6	91.0	5	18.5	20	32.4	0.40		0.30	2	28			
Yarbo (Fairfield)	50 39	102 4																	
Yellow Grass	49 49	104 9		52.0		5	84.0	6	22.0	22	26.2	1.48		0.78	4	26			
Yorkton	51 11	102 29																	
S. Saskatchewan River																			
Chaplin	50 26	106 39	2202	53.5	+ 2.4	24	86.0	4-5	26.0	25	29.0	0.27	-0.68	0.10	4	26	4		
East End (Divide)	49 31	108 49				2	82.6	10	15.6	24		0.57		0.57	1	29			
Kelvinhurst (Nashlyn)	61 46	103 10																	
Kindersey				50.0		1	82.0	5	20.0	24	26.1	0.39		0.20	3	27			
Larchmont (Glenbryn)	49 21	106 29		53.6		3	90.0	14	19.0	20	31.4	0.20		0.17	1	29	12		
Oliver	49 54	107 27																	
Rathmullen	51 20	103 57		53.0		4	86.0	5	21.0	25	32.0	0.47		0.29	2	28			
Swift Current	50 20	107 45	2439	55.2	+ 2.0	27	91.0	4	24.0	20	35.0	0.48	-1.18	0.16	8	22		4	
N. Saskatchewan River																			
Battleford	52 41	103 20	1620	55.2	+ 3.4	23	88.0	4	22.0	24	28.8	1.07	-0.19	0.91	3	27			
Lloydminster	53 13	110 0		53.8		8	80.0	9	27.0	24	27.7	0.17		0.11	2	28			
Luseland	52 5	109 34		51.9		3	83.0	13	19.0	24	31.2	0.93		0.83	28				
Oliver	52 5	109 34		53.3		1	89.0	4	20.0	24	33.9	0.69		0.34	2	28	4	1	
Onion Lake	53 62	109 59		47.8		6	79.0	7	17.0	24	29.6								
Prince (Meota)	51 0	108 20	1700																
St. Walburg	51 59	108 30		51.2		3	86.0	4	20.1	24	34.5	1.24		1.21	2	28			
Scott (Ex. Farm)	53 6	109 29		50.8		6	82.0	4-8	29.0	24	31.0	0.77		0.57	2	28	5		
Waseca																			
The Saskatchewan Forks																			
Chagnoness (Star City)	52 32	104 13																	
Duck Lake	52 54	106 20		51.3		4	81.0	4	25.0	21-22	26.9	0.06		0.39	6	24			
Melfort	52 47	104 30																	
Prince Albert	53 10	106 0	1432	63.5	+ 3.6	29	84.5	4	29.0	21	27.8	2.53	+1.09	0.80	6	24	1		
Rosher	52 40	106 20	1657	50.6		3	84.3	5	29.7	10	24.9	2.89		1.48	8	22			
Saskatoon	52 15	106 30	1571	52.1	+ 2.1	15	85.5	5	30.2	20	26.2	1.69	+0.23	0.76	5	25		1	
Lower Saskatchewan River																			
Cumberland House	53 56	102 16				3	80.0	5-6	24.0	21	26.1	1.54		0.48	7	23		2	
Last River	53 17	104 21		49.9															
MANITOBA—																			
Qu'Appelle and Assiniboine Rivers																			
Aweine (St. Albans)	49 42	99 35	1180	55.8	+ 6.0	28	94.0	5	22.0	22	28.5	0.95	-0.63	0.28	9	21	3		
Baievaivai	50 25	101 1	1703	55.4		2	90.0	5-6	26.0	22	26.3	0.57		0.30	7	23			
Brandon	49 61	99 57	1176	53.9	+ 0.4	25	87.3	5	23.0	22	29.9	0.68	-0.54	0.17	9	21		2	
Carberry	49 62	99 20	1258																
Carman	49 31	98 0	872																
Cypress River	49 33	99 3	1232	52.3		8	86.0	5	13.0	22	31.6	0.99		0.37	8	22			
Millview	49 55	100 33	1490	53.9	+ 2.7	31	89.0	9	24.0	21	25.2	0.88	-0.73	0.47	5	25		2	
Minnedosa	50 15	99 50	1609	53.4	+ 1.3	30	88.5	5	23.0	21	26.7	0.95	-0.67	0.53	11	19	2	6	
Ninette	49 24	99 38	1563																
Ninca	49 14	99 51	1649	54.2		3	87.0	5	23.0	20	26.5	1.07		0.52	3	27			
Norquay	49 10	101 5	1531	53.9		1	84.0	4	26.0	21-22	23.8	2.46		1.32	8	22		2	
Pierson	49 11	101 6	1531	53.8		8	90.0	6	12.0	22	31.7	1.64		0.55	6	24			
Pipstone	49 34	100 58	1400																
Portage la Prairie	49 57	98 17		55.4	- 0.8	23	80.0	1-10	24.0	22	23.4	1.66	+0.08	0.81	7	23			
Portage la Prairie (2)	49 56	98 17		54.8		8	79.0	1-10	24.5	22	23.8	1.33		0.88	5	25			
Russell	50 59	101 20		50.0	+ 0.9	22	88.0	6	23.0	21	26.7	0.09		0.25	6	24			
Souris	50 40	97 14	903	54.9		1	89.0	6	23.5	22									
Treherne	49 36	98 40	1212	55.8	+ 2.7	18	86.0	4	27.0	21-22	23.7	2.60		1.78	7	23	1	4	
Virden	49 51	100 65	1444	53.6	+ 1.8	40	91.0	5	27.0	21	30.1	0.50		0.40	2	28			
The Red River																			
Almasippi	49 14	99 20		55.6	+ 1.7	11	87.0	3	10.0	22	28.6	1.91	-0.04	1.22	7	23	1	3	
Morden	49 11	98 6	978	55.1	- 1.5	18	85.0	10	20.0	22	23.9	1.19		0.65	6	24		3	
Oak Bank	49 57	96 42	800	55.7	- 1.5	18	81.0	6	21.3	22	22.0	1.31	-1.00	0.92	6	24		1	
St. Mary Mountain	49 57	96 42	800	54.9	+ 1.9	31	85.0	6	15.0	22	28.9	1.00	-1.18	1.00	1	29			
Winnipeg	49 53	97 7	760	55.7	+ 1.8	40	83.4	6	22.8	22	26.6	1.27	-0.65	0.92	5	22	2	2	

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPT., 1913.

\* Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.					No. of aurora.	No. of fair days.	No. of thunderstorms.	No. of fogs.
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.					
MANITOBA—Continued.																			
Dauphin Lake and River	52 18	97 23	710																
Berens River	51 8	100 2	957	53.7	—	3	88.0	6	25.0	21-22	23.8	1.10	—	0.35	6	24	1		
Dauphin	51 15	99 33		53.5	—	4	73.2	10	21.6	25	20.7	1.09	—	0.48	10	20	6		
Moose Horn Bay (Atkinsville)	51 15	99 33		53.5	—	4	73.2	10	21.6	25	20.7	1.09	—	0.48	10	20	6		
Lake Winnipegosis.																			
Le Pas	52 6	101 15	1112	52.0	—	3	81.0	5	31.0	20-26	21.1	0.60	—	0.45	4	26	3		
ONTARIO—																			
The Lake Superior Districts.																			
Rainy River.																			
Fort Frances	49 49	93 32	1102	49.1	— 3.1	13	73.0	1	20.0	22	25.1	1.00	— 1.85	0.86	2	28	1		
Kenora	49 49	93 32	1102	49.1	— 3.1	13	73.0	1	20.0	22	25.1	1.00	— 1.85	0.86	2	28	1		
Shoal Lake	51 8	100 2	957	53.7	—	1	82.5	6	32.0	22	16.8	0.50	—	0.69	4	26	1		
Thunder Bay.																			
Kakabeka Falls	48 29	89 26	912	50.5	—	5	79.0	1-6	23.0	23	25.6	3.71	—	0.98	10	20	2		
Port Arthur	48 27	89 12	644	52.4	— 0.4	31	78.0	2	26.0	23	19.3	3.85	— 0.64	1.21	9	21	2		
Schreiber	48 50	87 15	933	49.6	—	7	75.8	2	23.8	14	18.6	3.44	—	2.14	7	23	1		
Algoma.																			
Bigo				61.9	—	1	85.8	2	22.8	14	22.3	2.12	—	1.02	12	18	1		
Bruce Mines	46 18	83 55	695	50.9	— 0.3	14	81.0	2	23.0	14	21.0	2.27	— 1.29	0.72	9	21	3		
Chapleau				49.9	—	5	80.0	1-6	23.0	14	22.8	2.51	—	0.80	7	23	1		
Copper Cliff	46 30	80 59		55.0	—	7	83.5	2	21.5	28	22.5	2.03	—	1.00	7	23	1		
Grosvonts				50.9	—	1	81.0	1-2	21.0	17-19	24.5	2.07	—	0.61	10	20	1		
Porcupine	45 40	82 14		51.7	—	3	85.0	2	23.0	21	27.30	24.8	—	0.76	9	21	4		
Providence Bay	48 33	85 16	1252	55.9	—	3	75.5	2	26.0	14	16.7	2.82	—	1.50	8	22	1		
Timmins (Sandy Falls)				50.7	—	1	84.0	2	24.5	30	24.5	2.09	—	0.70	10	19	1		
White River				47.6	— 2.4	23	79.0	1-6	15.0	14	25.7	2.69	— 0.57	0.56	12	18	3		
Nipissing.																			
Cochrane	49 2	81 0	946	50.8	—	2	82.0	1	27.0	30	22.3	1.81	—	0.39	12	18	2		
Haileybury	47 29	79 29	687	51.0	— 0.4	18	81.8	2	29.2	30	20.1	2.13	— 1.24	1.07	8	22	1		
Innis Falls	48 45	80 40	850	50.6	—	1	82.9	2	25.7	20	24.2	2.61	—	0.78	12	18	2		
Montreal River	47 8	79 20		46.8	—	3	85.0	2	15.0	15	36.1	2.66	—	0.80	8	22	1		
Upper Ottawa River.																			
Rutherford (Lake Talon)	46 15	74 48		53.9	— 3.6	18	88.5	2	25.2	15-30	26.1	2.10	— 1.67	0.70	10	20	1		
Stowessill (Rockville)	46 9	78 6	657	54.3	— 1.8	26	88.0	2	28.0	36	14.8	2.80	— 0.66	0.88	11	19	1		
Upper St. Lawrence and Lower Ottawa Rivers.																			
Almonte	45 12	76 13	390	55.8	—	2	87.2	2	25.0	15	33.9	3.84	—	1.47	6	24	1		
Bloomfield	43 59	77 21	260	50.1	— 1.3	13	85.0	3	32.0	14	19.7	1.44	— 1.24	1.00	3	27	1		
Hillier				57.1	—	2	82.0	2	31.0	15	20.7	0.70	—	0.40	3	27	1		
Kingston	44 13	76 29	285	58.1	— 2.5	39	80.2	2	35.5	14	18.0	3.44	— 0.16	1.20	9	24	1		
Montague	44 56	75 57		56.1	—	4	86.0	2	37.0	15	33.7	2.00	—	0.77	8	22	1		
Morrisburg				50.2	—	1	86.0	2	26.0	15	26.6	2.09	—	0.55	8	22	1		
North Gower	45 8	75 43		59.6	— 1.6	11	88.0	1	27.0	13	39.3	9.46	—	0.46	1	29	1		
Ottawa	45 26	75 42	294	56.4	— 2.5	25	85.0	2	33.0	14	18.6	3.02	— 0.30	0.93	7	23	1		
Renfrew	45 26	76 39	416	57.2	— 0.5	25	92.2	2	26.5	15	35.3	3.71	— 1.33	1.67	8	22	1		
Georgian Bay Counties.																			
Barrie	44 23	79 41	830	57.3	— 2.0	33	86.0	2	33.9	14	18.9	0.97	— 1.70	0.21	9	21	1		
Beattie	45 8	79 20	800	54.8	— 0.3	38	85.0	2	25.0	11	31.9	1.84	— 1.14	0.25	7	23	1		
Big Chute (Buskin P. O.)	44 38	79 20	655	58.5	—	1	85.0	3	30.0	11	15.7	1.75	—	0.22	6	24	1		
Collingwood	44 38	79 40	600	57.3	— 0.0	24	95.0	2	19.0	15	34.4	1.12	— 1.64	0.66	3	27	1		
Collingwood	44 31	80 2		55.7	—	1	88.0	2	21.0	11	34.4	1.47	— 0.5	0.80	8	22	1		
Greenhurst	44 54	78 20		55.7	— 1.3	42	88.0	2	21.0	11	34.4	1.47	— 0.5	0.80	8	22	1		
Huntsville	45 19	79 8		56.2	—	7	80.0	2	25.0	11	34.4	1.47	— 0.5	0.80	8	22	1		
*Midland	44 41	79 53	750		—	6						1.47	— 0.5	0.80	8	22	1		
Markdale				55.5	—	6	83.0	4	24.0	15	24.4	1.63	— 1.25	0.30	7	23	1		
Newford				57.4	— 1.1	13	92.0	2	35.0	13	19.1	1.63	— 1.41	0.8	7	23	1		
Orillia	44 37	79 24	775	58.2	— 1.0	32	87.0	2	30.0	14	34.1	1.59	— 1.41	0.8	7	23	1		
Owen Sound	44 34	80 55	507		—	8			33.0	11	34.4	1.47	— 1.13	0.7	7	23	1		
Perry Sound	45 13	80 0	635	57.1	— 1.1	37	87.0	2	28.0	10-14	24.2	2.22	—	1.21	8	22	1		
Ronville	45 15	78 55	1038	54.6	—	6	86.0	2	28.0	10-14	24.2	2.22	—	1.21	8	22	1		
Uxbridge	45 18	79 25																	
Lake Huron Counties.																			
Brimley	43 2	81 55	640	59.1	— 1.2	23	88.0	2	37.4	14	18.7	0.97	— 1.70	0.21	9	21	1		
Clinton	43 32	81 37		58.0	—	11	84.0	2	41.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
Goderich	43 45	81 41		59.2	— 1.1	21	91.0	2	37.7	10-11	18.8	0.83	— 0.87	0.6	8	22	1		
Lucknow	43 53	81 30	908	57.6	— 2.8	27	94.4	2	39.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
*North Bruce	44 21	81 25		58.2	— 1.3	25	91.0	2	39.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
*Point Clerk	44 5	82 44	656		—	3						0.97	— 1.70	0.21	9	21	1		
*Southampton	44 30	81 21	505	50.2	— 0.5	37	91.8	2	39.1	10	20.0	0.43	— 0.6	0.6	10	14	1		
Lakes St. Clair & Erie, Niagara Peninsula.																			
Chatham	42 23	80 12	505	63.5	— 1.8	27	87.0	2	36.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
Cottam	42 7	82 45	606	60.2	— 2.4	28	87.0	2	38.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
Durton				59.5	—	1	84.0	2	42.0	14	18.7	1.1	— 1.5	0.6	7	23	1		
Grimsby	43 13	79 36		59.6	—	3	89.0	2	38.7	14	18.7	0.97	— 1.70	0.21	9	21	1		
Isle of Pelee	41 50	83 27	585		—	16						1.63	— 0.45	1.07	4	27	1		
Port Burwell	42 30	80 55	692	57.8	— 3.1	19	89.5	2	31	11	19.0	1.63	— 0.45	1.07	4	27	1		
Port Dover	42 27	80 15	695	58.4	— 2.9	41	86.5	2	34.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
Port Stanley	42 40	81 11	592	57.7	— 3.1	47	89.2	2	33	12-14	18.0	1.86	— 0.95	0.72	8	22	1		
St. Catharines	43 9	79 17	317		—	28						1.63	— 0.45	1.07	4	27	1		
Stony Creek	43 13	79 45	292	58.3	— 4.1	28	89.0	2	34.0	14	18.7	0.97	— 1.70	0.21	9	21	1		
Welland	42 35	82 24	575	59.6	—	8	93.0	1	32.0	13	18.7	0.97	— 1.70	0.21	9	21	1		
Welland	42 50	79 17	677	60.0	— 1.2	27	88.0	2	35.0	13	18.7	0.97	— 1.70	0.21	9	21	1		
Windsor	42 20	83 4	675	62.0	— 0.9	49	86.0	2-4	37.1	23	16.7	7.1	— 1.53	0.45	7	24	1		

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STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION							
				Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Haviest fall in month.	Days with 01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.
ONTARIO—Continued—																		
West-Central Counties																		
Alton.....	43 51	80 5	1230	58.2	—	31	89.0	2-3	29.0	13	25.0	1.39	-0.86	0.55	4	26	..	2
Brantford.....	43 10	80 21	750	56.7	-1.0	16	90.0	—	26.0	14	28.3	0.79	-1.61	0.23	6	23	..	..
Elora.....	43 41	80 24	1274	56.8	-0.1	28	88.0	2-7	29.0	14	24.1	1.37	-0.80	1.00	5	25	..	..
Guelph.....	43 33	80 16	1050	55.8	—	11	89.0	—	28.0	13	21.7	0.68	-2.35	0.39	3	27	..	..
Listowel.....	42 59	81 13	893	59.5	-1.1	27	91.0	2-3	33.0	14	26.0	0.52	-2.54	0.20	4	26	..	..
London.....	43 12	80 25	840	59.6	-0.6	24	89.0	2-7	31.0	14	23.7	1.09	-1.02	0.46	6	24	..	3
Paris.....	43 12	80 25	840	59.6	-0.6	24	89.0	2-7	31.0	14	23.7	1.09	-1.02	0.46	6	24	..	3
Shelburne.....	43 23	81 0	1191	57.4	-0.9	45	87.0	7	28.0	13	21.6	4.17	-1.02	2.07	7	23	..	..
Stratford.....	43 8	80 47	950	58.7	-0.6	39	87.0	3	30.0	14	21.0	0.36	-3.47	0.15	4	26	..	..
Woodstock.....	43 8	80 47	950	58.7	-0.6	39	87.0	3	30.0	14	21.0	0.36	-3.47	0.15	4	26	..	..
Lake Ontario Counties																		
Agincourt.....	43 47	79 16	590	59.7	-0.7	18	88.0	2	32.0	14	21.9	0.45	-1.00	0.16	7	23	..	2
Aurora.....	43 57	79 24	886	55.6	—	6	89.0	2	23.0	13	24.2	1.33	—	0.43	5	25	..	1
Hamilton.....	43 16	79 54	203	58.3	-3.4	39	87.0	2	36.0	14	16.7	1.03	-2.05	0.54	3	27	..	1
Orillia.....	43 53	78 52	331	59.4	—	14	85.4	2	35.6	14	20.1	0.97	-2.21	0.39	6	24	..	2
Toronto.....	43 40	79 24	350	59.4	-1.4	72	85.4	2	35.6	14	20.1	0.97	-2.21	0.39	6	24	..	2
Toronto Is. (Lakeside Home)	43 40	79 24	350	59.4	-1.4	72	85.4	2	35.6	14	20.1	0.97	-2.21	0.39	6	24	..	2
Uxbridge.....	44 5	79 8	886	56.8	—	9	85.0	2	39.0	14	21.0	0.63	—	0.18	6	24	..	2
Wexford.....	43 44	79 17	555	56.5	—	2	83.0	2	32.0	14	19.2	0.60	—	0.24	5	25	..	..
East-Central Counties																		
Bancroft.....	45 1	77 59	557	53.2	+0.2	22	86.0	2-11	23.0	14	26.6	—	—	—	—	—	—	—
Haliburton.....	45 1	78 24	1050	55.8	-1.0	26	90.0	—	25.0	14	29.6	1.92	-1.01	0.75	7	23	..	2
Kinmount.....	44 45	78 38	920	51.5	-4.4	14	84.0	7	21.0	14	29.2	2.37	-0.68	1.01	8	22	..	..
Lakefield.....	44 23	78 15	850	57.0	-2.9	30	82.0	8	31.0	15	22.4	1.53	-1.43	0.59	6	24	..	1
Lindsay.....	44 20	78 45	872	57.6	+0.4	31	85.4	7	28.9	14	22.5	0.54	-2.04	0.31	9	21	..	1
Madoc.....	44 30	77 29	575	57.2	—	9	85.0	8	27.0	15	24.1	1.23	—	0.60	6	24	..	6
Norwood.....	44 17	78 19	722	57.6	-1.4	40	87.0	3	26.0	15	26.7	0.63	-2.55	0.45	5	25	..	..
Peterboro.....	44 17	78 19	722	57.6	-1.4	40	87.0	3	26.0	15	26.7	0.63	-2.55	0.45	5	25	..	..
Ursa.....	44 54	78 18	18	57.6	-1.4	40	87.0	3	26.0	15	26.7	0.63	-2.55	0.45	5	25	..	..
QUEBEC—																		
Middle St. Lawrence																		
Beauveville.....	46 11	70 48	557	53.2	—	1	87.0	3	15.0	2	29.7	2.06	—	1.34	7	23	..	9
Brome.....	45 10	72 36	675	53.5	-1.7	33	83.0	2-3	24.0	15	22.8	2.53	-1.04	1.10	8	22	..	..
Cap Rouge.....	46 46	71 18	132	54.6	—	3	82.0	3	28.2	30	23.2	4.01	—	1.95	9	21	..	1
Cedar Rapids.....	45 55	71 11	896	56.2	—	1	85.0	3	33.0	30	22.7	1.83	—	0.42	8	22	..	..
Drummondville.....	45 55	71 11	896	56.2	-2.6	39	81.2	3	33.7	30	16.7	4.28	+0.89	1.58	9	21	..	2
Montreal.....	45 30	73 35	187	55.2	-0.2	39	80.8	2	29.2	30	18.7	3.89	+0.12	1.15	10	20	3	1
Quebec.....	46 48	71 13	296	56.1	-7.8	7	85.0	2	30.2	29	23.4	2.79	—	1.08	8	22	..	..
St. Anne de Bellevue.....	45 27	73 60	575	57.2	-2.2	27	87.0	2	32.0	16-30	29.9	4.12	—	0.89	1	24	..	..
Shawville.....	46 34	72 43	620	54.6	-1.8	10	84.8	2	28.0	16	22.8	2.07	-2.06	1.06	11	19	1	1
Shawville.....	45 32	72 5	620	54.6	-1.8	10	84.8	2	28.0	16	22.8	2.07	-2.06	1.06	11	19	1	1
Lower St. Lawrence & Gulf																		
*Anticosti E. Pt.....	49 6	61 42	30	50.4	+0.4	30	59.0	2-3	32.0	30	—	3.63	+1.03	2.75	3	27	..	5
*Anticosti S.W. Pt.....	49 6	61 42	30	47.3	-1.5	32	64.0	17	28.5	30	13.1	3.55	+0.79	2.25	11	19	1	..
*Anticosti W. Pt.....	49 52	64 32	30	43.4	-3.7	32	51.0	2	36.0	30	—	2.11	-0.61	0.49	9	21	..	4
*Bequet.....	49 25	68 03	30	53.0	—	7	36.0	30	—	30	—	2.30	-0.76	1.50	4	26	..	2
*Cape Chatre.....	49 6	66 45	30	49.1	-3.8	32	72.0	7	36.0	30	—	0.81	-1.82	0.61	3	27	..	7
*Cape Madeleine.....	49 16	65 20	63	50.5	-0.9	31	70.0	26	36.0	30	—	0.79	-1.81	0.18	8	22	1	1
Father Point.....	49 31	68 19	20	49.8	-0.1	36	73.0	26	33.0	10-11	17.5	2.42	-0.62	1.46	10	20	..	1
Ste Anne de la Pocatiere.....	47 22	70 2	65	53.6	—	3	81.8	7	33.2	30	21.7	2.81	—	1.03	6	24	..	..
Lake St. John																		
Chicoutimi.....	48 25	71 5	159	48.7	-0.6	34	79.4	1	28.9	30	29.0	2.56	-0.87	0.86	9	21	1	7
Chicoutimi (2).....	48 25	71 5	159	48.7	-0.6	34	79.4	1	28.9	30	29.0	2.56	-0.87	0.86	9	21	1	7
Lake Edward.....	47 39	72 15	1333	54.1	—	2	86.0	3-8	23.0	29	27.8	4.01	—	2.33	6	24	..	..
La Tuque.....	48 54	72 15	360	51.6	—	2	77.5	2	30.0	10-30	21.3	3.04	—	1.18	11	19	4	3
Mistassini.....	48 54	72 15	360	51.6	—	2	77.5	2	30.0	10-30	21.3	3.04	—	1.18	11	19	4	3
*Roberval.....	48 31	72 13	352	51.6	—	2	77.5	2	30.0	10-30	21.3	3.04	—	1.18	11	19	4	3
The Northwestern Districts																		
Abitibi.....	48 33	79 22	..	52.6	+0.8	18	77.0	1-2	29.0	30	16.1	2.47	+0.06	0.48	11	19	3	..
Amos.....	47 54	73 60	..	49.3	—	1	79.8	1	25.0	14	23.2	2.82	—	0.52	15	15	3	..
Manitou Crossing.....	47 54	73 60	..	49.3	—	1	79.8	1	25.0	14	23.2	2.82	—	0.52	15	15	3	..
Temiskaming.....	47 54	73 60	..	49.3	—	1	79.8	1	25.0	14	23.2	2.82	—	0.52	15	15	3	..
Weymouth (Dum. A).....	48 12	76 43	..	48.3	—	2	80.0	2	18.0	15	22.4	4.32	—	1.06	12	18	3	1
White Shore Lake.....	48 12	76 43	..	48.3	—	2	80.0	2	18.0	15	22.4	4.32	—	1.06	12	18	3	1
The North Shore																		
Charle City.....	50 10	66 25	..	48.0	—	7	75.0	1	27.0	30	19.7	2.82	—	1.20	13	17	..	3
New Brunswick—																		
Chatham.....	47 3	65 29	21	55.5	-1.5	39	83.5	3	31.5	30	21.2	1.63	-1.50	0.68	10	20	..	..
Dalhousie.....	48 4	66 22	39	53.7	+0.7	39	80.0	1	32.0	30	17.7	1.58	-1.60	0.90	3	27	..	..
Fredericton.....	45 57	66 36	164	51.6	-1.6	40	85.0	3	29.0	28	22.5	2.15	-1.22	0.55	7	23	..	1
Fredericton (Ex-Farm).....	46 9	64 45	50	53.8	-2.0	16	84.0	3	32.0	28-30	—	1.20	—	0.72	7	23	..	2
Moncton.....	46 9	64 45	50	53.8	-2.0	16	84.0	3	32.0	30	21.9	2.20	-1.20	0.91	5	25	..	3
*Point Lepreau.....	45 4	60 28	30	52.6	-2.0	40	83.0	24	35.0	30	—	2.45	-1.20	0.91	5	25	..	7
St. John.....	45 17	66 4	70	54.5	-2.1	40	70.2	1	26.3	30	12.1	2.14	-1.50	0.84	8	22	..	4
St. Stephen.....	45 11	67 16	35	54.2	-3.4	16	81.0	3	27.0	30	28.3	3.06	-0.92	0.83	8	27	..	3
Quebec.....	45 38	65 38	96	57.7	-1.6	16	80.0	2	31.0	28-30	20.0	2.53	-0.30	1.35	3	27	..	..
Williamsburg.....	45 38	65 38	96	57.7	-1.6	16	80.0	2	31.0	28-30	20.0	2.53	-0.30	1.35	3	27	..	..

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPT., 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE										PRECIPITATION			Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average	Heaviest fall in month							
NOVA SCOTIA—																					
Advocate.....	45 38	61 59	50	55.3	—	1	—	—	26.0	30	—	—	—	—	—	—	—	—			
Antigonish.....	45 38	61 59	50	55.3	—	3	82.0	—	29.0	7	20.8	—	—	—	—	—	—	—			
Halifax.....	44 39	63 36	88	56.4	-2.4	39	81.7	—	35.0	16-28	19.9	2.69	-1.32	0.93	11	19	—	—			
Kentville.....	45 3	—	40	52.7	—	—	82.0	—	32.0	30	18.4	2.07	—	0.79	9	21	—	—			
Kentville (2).....	—	—	—	54.4	—	—	81.0	—	35.0	29	18.8	2.55	—	0.85	14	16	—	—			
Liverpool.....	—	—	—	53.2	—	1	89.0	—	3	—	—	—	—	0.44	6	22	—	—			
Merigonish.....	—	—	—	—	—	—	—	—	29.0	16	27.0	1.95	—	—	—	—	—	—			
New Germany.....	—	—	—	54.2	—	2	82.0	—	30.0	16	21.5	2.94	—	2.17	5	22	—	—			
Parabola.....	45 23	64 19	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Port Hastings.....	45 39	61 22	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Sable Island, E. Pt.....	43 58	59 49	23	58.7	-1.8	25	70.0	—	49.0	16	—	1.84	-0.95	1.09	4	26	—	—			
Sable Island (Main Station).....	43 57	60 6	25	55.7	-1.0	30	69.0	28.1	47.6	28-29	9.8	3.07	-0.34	0.85	9	21	—	—			
Sydney.....	46 10	60 10	35	56.6	-0.4	40	81.0	—	39.0	25	16.9	4.36	+1.17	1.44	11	19	—	—			
Truro.....	45 22	63 18	77	54.6	-1.3	36	77.4	—	30.5	16	21.7	2.95	-0.06	0.86	10	20	—	—			
Truro (2).....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Whitehead.....	45 15	61 8	20	56.4	-1.2	30	68.0	—	46.0	30	—	2.16	—	2.01	3	27	—	—			
Windsor.....	44 59	64 6	90	57.2	-0.1	11	90.0	—	35.5	30	18.6	2.27	—	0.88	8	21	—	—			
Wolfville.....	45 7	64 20	—	56.1	-0.8	14	84.2	—	33.4	30	19.4	2.54	-1.42	0.83	10	20	—	—			
Yarmouth.....	43 50	66 2	65	54.5	-1.7	35	75.5	—	35.1	30	15.2	1.29	-2.60	0.51	7	23	—	—			
P. E. ISLAND—																					
Charlottetown.....	46 14	63 10	38	56.5	-1.2	38	79.0	—	36.0	30	14.6	3.48	-0.36	0.65	12	18	—	—			
Charlottetown (Exp. Farm).....	46 14	63 7	75	56.1	—	4	75.0	—	39.0	30	14.7	3.98	—	0.91	13	17	—	—			
Hamilton.....	46 25	63 48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Summerside.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
NEWFOUNDLAND—																					
Amour Point.....	51 28	56 51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Burin.....	47 0	55 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
*Cape Norman.....	51 38	55 52	—	43.6	-4.6	31	56.0	—	34.0	29	—	0.58	-1.64	0.22	3	27	—	—			
Fogo.....	49 43	54 17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
*Point Riche.....	50 42	57 25	35	52.6	+0.9	29	70.0	—	40.0	30	—	—	—	—	—	—	—	—			
Port aux Basques.....	47 35	59 10	27	51.5	—	5	68.0	—	34.5	7	11.2	3.95	—	1.41	14	16	—	—			
St. George's.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
St. John's.....	47 34	52 42	125	54.6	+0.9	40	76.0	—	33.0	22	15.3	2.53	-0.92	0.52	18	12	—	—			
LABRADOR—																					
*North West River.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
BERMUDA—																					
Prospect.....	32 17	64 46	151	76.6	-1.2	23	85.6	—	67.4	18	10.9	1.84	-8.40	0.76	11	10	—	—			



## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING SEPT., 1913

SEP. 22, 1913										
STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake.....	2.18	7	21	0.56	3					
Aanis (Canoe Point).....	1.91	8	22	1.11	3					
Armstrong.....	4.10	9	21	1.56	2					
Beaver Lake.....	3.93	7	23	1.31	27					
Coquitlam.....	4.92	6	24	2.70	3					
Cariboo Road No 141.....	3.22	12	18	1.17	4					
Denman's Island.....	3.45	10	20	0.75	13					
Ferguson.....	1.89	9	21	1.33	27					
Goldstream Lake.....	4.51	6	24	1.05	22					
Hydraulic.....	5.27	15	15	1.01	3					
Hornby Island.....	7.79	14	16	1.51	4					
Invermere.....	2.51	8	22	0.75	22					
Jordan River.....	1.30	11	19	0.41	4					
Jordan River (Bear Creek).....	11.67	27	3	1.75	30					
Little Qualicum (Fr. Cr. V.L.).....	1.21	4	26	0.52	21					
Lumby.....	0.90	—	—	0.36	28					
Nans Harbour.....										
Rock Creek.....										
Shawewan Lake.....										
Smoke Lake.....										
Wycliffe.....										
ALBERTA—										
Bardo.....	0.78	2	28	0.61	18					
Bismark.....	0.28	2	28	0.21	9					
Brueckheim.....										
Bittern Lake.....	0.46	4	26	0.30	18					
Brooks.....	0.79	5	25	0.57	22					
Beaver Mines.....	0.60	2	23	0.47	23					
Coleman.....	1.24	7	23	0.34	22					
Cowley.....	0.62	6	22	0.33	22					
Caldwell.....	0.74	3	27	0.55	21					
Chresholm.....	0.77	3	27	0.47	18					
Charinda.....	1.37	5	25	0.49	22					
Durendee (Bushy).....	0.40	2	28	0.20	6-18					
Dunstable (Five Lakes).....	0.90	9	21	0.45	18					
Grassy Lake.....	0.00	—	—	—	—					
Jumping Pound.....	0.47	3	27	0.33	21					
Loch Sloy.....										
Lyndon.....	0.96	5	25	0.42	1					
Lincham.....	1.90	3	27	0.60	22					
La Pearl.....	1.12	2	28	1.03	18					
Lethbridge.....	0.97	6	24	0.49	18					
Macleod.....	0.66	3	27	0.31	22					
Maverof.....	0.56	4	26	0.21	22					
Mountain View.....	0.78	2	28	0.74	22					
Mannville (Roycroft Ranch).....	0.78	2	28	0.75	18					
Nateby.....										
Nanton.....	1.09	4	26	0.56	21					
Oktoka.....										
Pekisko.....	1.25	3	28	0.60	22					
Ponoka.....	0.65	3	27	0.32	17					
Seven Persons.....	0.41	1	29	0.41	22					
Tilley.....										
Writing-on-Stone (Coutts).....										
Watrous Mills.....	2.04	8	22	0.71	23	*	1	*	22	
SASKATCHEWAN—										
Battle Creek.....										
Gull Lake.....	0.60	2	28	0.34	23					
Gull Lake (Fks Swift Cr.).....	1.21	3	27	0.56	23					
The Meadows (Battle Cr.).....										
Willow Creek (Maple Cr.).....										
Wapahoe.....	1.19	3	27	0.76	23					
MANITOBA—										
Carlwright.....	2.58	9	21	1.44	9					
Deloraine.....										
Norquay (Swan Lake).....										
Rapid City.....	0.58	5	25	0.46	3					
Rose Bank.....										
ONTARIO—										
Brantford (Bow Park Farm).....	1.90	7	22	0.89	3					
Deer Park.....	0.67	5	25	0.31	20					
Dutton.....	0.35	1	29	0.35	18					
Embsdale.....	3.09	10	20	1.15	18					
Fort Frances.....										
Georgetown.....	1.14	7	23	0.49	27					
Grantham.....	0.91	7	23	0.25	4					
Grand Valley.....										
Hillier.....										
MacKen.....	2.53	5	25	1.45	20					
Niagara Falls.....	1.17	4	26	0.65	3					
Nipigon.....	3.44	9	21	2.20	21					
Princeton.....										
Point Clark.....	1.00	2	28	0.60	17					
Renfrew.....										
Sydenham.....	2.15	1	29	2.15	21					
Strathroy.....	0.55	3	27	0.31	19					
Watford.....	0.33	3	27	0.14	26					
Westport.....	3.36	6	24	2.42	21					
Westminster.....	0.52	3	27	0.23	17					
Wooler.....										
Wesley.....										
Watonysyl.....										
Warton.....	1.38	6	21	0.41	17					

[illegible]

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF SEPT., 1913

<sup>a</sup> Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				DIRECTION OF WIND FROM				VELOCITY OF WIND												
				Mean reduced.	Highest.	Lowest.	Range.	Mean relative humidity	Mean amount of cloud.	No. of days completely clouded.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations	Mean miles per hour.	Maximum velocity.	Date and direction from.	
BRITISH COLUMBIA—																								
Atlin	59	35 133 38	2240	28 82	30 25	29 27	9 96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Barkerville	53	53 121 35	4180	29 99	30 46	29 52	9 93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kamloops	50	42 139 29	1345	29 83	30 29	29 50	7 9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chinatown	49	10 123 37	125	29 93	30 27	29 42	8 85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince Rupert	54	18 130 18	170	29 85	30 37	29 18	1 19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Triangle Island	50	52 129 5	686	28 75	29 16	28 31	8 84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Greenland	50	41 130 20	135	30 04	30 38	29 60	7 8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vancouver	49	17 123 5	136	30 03	30 36	29 60	7 8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Victoria	48	24 123 19	85	30 03	30 36	29 54	8 82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
YUKON—																								
Dawson	64	4 139 20	1200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ALBERTA—																								
Banff	51	10 115 34	4548	30 00	30 43	29 49	9 94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Calgary	50	13 106 0	1432	29 91	30 45	29 50	9 90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Edmonton	53	33 113 30	2159	29 96	30 37	29 40	9 97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medicine Hat	50	1 110 37	2161	29 91	30 35	29 39	9 96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
SASKATCHEWAN—																								
Battleford	52	41 108 20	1020	29 92	30 37	29 37	1 00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Moose Jaw	50	21 105 35	1719	29 92	30 43	29 57	1 55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince Albert	50	30 101 20	1255	29 95	30 38	29 37	1 01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Qu'Appelle	50	30 103 47	2159	29 95	30 38	29 37	1 01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Swift Current	50	20 107 45	2439	29 93	30 44	29 42	1 02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MANITOBA—																								
AWeme (St. Alban's)	49	42 99 33	1180	28 80	29 16	28 35	9 81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Minnedosa	50	15 59 57	1609	30 02	30 49	29 38	1 11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Le Pas	53	26 75 45	294	29 13	30 60	29 71	9 89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Winnipeg	49	53 97 7	700	30 05	30 51	29 39	1 12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ONTARIO—																								
Cochran	49	2 81 0	946	30 13	30 65	29 50	1 15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Culph	43	33 30 16	959	30 12	30 71	29 60	1 01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haleybury	41	13 56 29	285	30 15	30 69	29 74	0 56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kincard	42	59 81 3	808	30 12	30 52	29 58	0 95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsey	44	20 78 45	872	29 21	30 58	28 81	0 77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ottawa	45	19 50 1	934	30 13	30 60	29 71	0 89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port Arthur	48	27 49 12	444	30 08	30 49	29 60	0 89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port Stnary	42	40 1 3	592	30 12	30 51	29 63	0 88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Southampton	41	30 81 21	656	30 13	30 58	29 63	0 95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. John's	46	9 48 6	557	30 11	30 59	29 67	0 92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Toronto	43	40 79 24	359	30 14	30 56	29 69	0 87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White River	48	35 85 16	1252	30 06	30 59	29 41	1 15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Woodstock	43	8 40 47	980	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
QUEBEC—																								
Anticosti W. Pt.	49	24 63 35	30	30 02	30 48	29 51	0 97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Father Pt. nt.	48	31 48 19	20	30 07	30 49	29 62	0 87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Montreal	45	30 13 35	187	30 12	30 62	29 68	0 94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quebec	46	48 17 13	30	30 11	30 61	29 67	0 91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sheniceke	45	32 72 5	620	30 14	30 61	29 70	0 79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NEW BRUNSWICK—																								
Chatham	47	3 05 29	21	30 10	30 49	29 66	0 83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fredericton	45	27 29 30	164	30 14	30 55	29 71	0 84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. John's	45	17 06 4	70	30 13	30 63	29 71	0 82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NOVA SCOTIA—																								
Halifax	44	29 63 36	88	30 11	30 59	29 72	0 78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Prince Island (MStation)	43	57 60 6	25	30 14	30 49	29 73	0 76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sidney	46	10 09 10	35	30 08	30 72	29 61	0 88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. John's	45	7 04 20	35	30 12	30 62	29 74	0 79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wolfeville	45	7 04 20	35	30 12	30 62	29 74	0 79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Yarmouth	43	50 06 2	65	30 13	30 57	29 78	0 79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
P. E. ISLAND																								
Charlottetown	46	11 43 10	38	30 09	30 47	29 66	0 81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
NEWFOUNDLAND																								
St. John's	47	0 55 10	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fogo	49	43 54 17	30	30 01	30 53	29 63	0 90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port aux Basques	47	35 59 10	47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
St. George's	47	31 52 42	125	30 00	30 50	29 50	1 00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
BERMUDA																								
Prospect	32	17 04 46	151	30 11	30 30	29 97	0 33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF SEPTEMBER, 1913

STATION	DIRECTION OF WIND FROM									Total number of observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	1	0	4	1	8	2	8	6	0	30
Didsbury.....	0	0	1	1	1	4	8	14	0	29
Endiang.....										
Halkirk (Emsburg).....	0	1	3	16	13	8	7	12	0	60
Hillsdown.....	0	2	0	10	4	9	0	26	9	60
Loveland.....	4	1	1	7	2	16	17	12	0	60
Macleod.....	2	0	0	4	0	0	35	3	16	60
Pakan (Victoria).....										
Ranfurly (Waitefield).....	5	3	8	11	10	6	12	22	13	90
SASKATCHEWAN—										
Chaplin.....	1	1	3	3	6	0	14	1	1	30
Crescent Lake.....	1	2	0	4	6	6	8	3	0	30
Estevan.....	0	3	5	4	3	4	6	3	2	30
Port Qu'Appelle.....	2	3	13	8	7	1	21	2	3	60
Grenfell (Brownhill).....	1	5	1	18	1	12	1	19	0	58
Indian Head.....	4	10	1	12	14	11	9	21	8	90
Larchmount (Glenbryan).....	1	3	0	7	4	11	21	13	0	60
Moosomin.....										
Muenster (St. Peter's Monastery).....	7	1	1	10	11	12	11	7	0	60
Onion Lake.....	4	2	4	5	2	2	7	4	0	30
Pense (Gatesgarth).....										
Waseca.....	1	2	1	2	1	4	14	5	0	30
MANITOBA—										
Berens River.....										
Brandon.....	0	3	1	5	2	7	2	9	1	30
Hillview.....	6	8	11	11	0	21	11	22	0	90
Moose Horn Bay (Aitkensville).....	11	5	3	7	7	5	5	6	11	60
Morden.....	13	1	3	7	8	8	4	2	14	60
Oak Bank.....	10	2	2	5	13	3	6	12	17	60
Stony Mountain.....	5	4	5	9	6	8	8	11	0	56
ONTARIO—										
Agincourt.....	3	4	26	12	3	20	8	14	0	90
Alton.....										
Beatrice.....	8	1	1	9	13	4	1	5	48	90
Biram.....	4	12	2	9	11	7	2	9	4	60
Clinton.....	8	3	11	7	9	9	3	9	1	60
Cottam.....	7	0	7	12	19	1	14	0	0	60
Gravenhurst.....	8	6	12	14	18	3	5	7	17	90
North Bruce.....	25	2	12	3	34	4	10	0	0	90
Orillia.....	4	1	1	1	9	8	3	2	0	29
Owen Sound.....										
Point Clark.....										
Port Dover.....	3	3	11	4	1	2	2	3	1	30
Stoney Creek.....	1	14	26	3	0	13	28	5	0	90
Uplands.....										
Wexford.....	0	1	6	0	1	4	1	3	14	30
QUEBEC—										
Abitibi.....	18	2	3	3	39	4	9	11	1	90
Anticosti, W. Pt.....	17	8	4	0	26	1	10	24	0	90
Anticosti, Heath Point.....	10	9	2	1	6	9	23	24	6	90
Bicquet.....	3	15	0	0	6	9	22	12	23	90
Brome.....	19	0	2	3	11	6	41	1	7	90
Cape Chatte.....	4	4	3	0	2	2	50	4	21	90
Cape Magdalen.....	8	1	0	4	17	3	6	42	9	90
Cap Rouge.....	6	5	0	0	1	1	0	17	0	30
Chicoutimi.....	2	11	3	4	1	1	13	15	40	90
Clarke City.....	2	1	7	1	0	3	1	15	0	30
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	0	10	0	0	0	14	1	4	29
Moncton.....	0	2	1	2	1	1	7	14	2	30
Pt. Lepreaux.....	12	10	7	5	2	13	16	13	0	78
Sussex.....	2	3	1	1	0	2	0	3	17	29
NOVA SCOTIA—										
Kentville.....	4	0	4	0	4	4	8	6	0	30
Parrsboro.....										
Port Hastings.....										
Sable Island, E. Pt.....	0	11	0	11	0	31	0	37	0	90
Truro.....										
Whitehead.....	23	10	3	9	3	36	1	5	0	90

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
SEPTEMBER 1915.

STATION.	HOURS ENDING																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Shawigan Lake.....				.15	.51	.64	.69	.65	.54	.56	.61	.63	.23	.44	.20			
Victoria.....				.08	.45	.64	.72	.68	.07	.64	.62	.63	.64	.62	.22			
Salmon Arm.....			.01	.17	.48	.64	.73	.70	.75	.76	.73	.70	.07	.53	.07	.01		
Nasimoo.....				.07	.23	.53	.59	.57	.58	.62	.62	.59	.52	.46	.07	.02		
Vancouver.....				.13	.35	.50	.50	.57	.54	.57	.62	.62	.03	.47	.28	T		
Agassiz.....				.06	.43	.63	.63	.65	.65	.63	.60	.56	.50	.32	.04			
Trail.....			.01	.43	.65	.68	.66	.70	.73	.67	.73	.72	.62	.52	.21	.03		
Summerland.....				.45	.73	.77	.78	.76	.77	.78	.76	.74	.66	.66	.06			
Kamloops.....				.16	.62	.68	.66	.74	.73	.71	.69	.73	.62	.31	.04			
Harper's Ranch.....				.10	.45	.68	.54	.52	.54	.49	.48	.52	.62	.27				
Edmonton.....			T	.52	.64	.62	.69	.73	.69	.65	.68	.62	.54	.16	.01			
Lethbridge.....				.21	.73	.84	.86	.85	.86	.91	.89	.86	.84	.78	.50	.14		
Lacombe.....				.04	.24	.56	.71	.80	.85	.87	.87	.78	.83	.61	.10			
Medicine Hat.....				.05	.48	.67	.74	.80	.84	.82	.82	.82	.72	.48	.05			
Fort Daavegan.....																		
Fort Vermilion.....				.03	.20	.32	.35	.37	.45	.48	.51	.50	.50	.42	.35	.05		
Battleford.....			.02	.37	.62	.72	.70	.77	.76	.77	.81	.83	.77	.71	.69	.23		
Indian Head.....				.13	.34	.62	.67	.75	.76	.75	.74	.72	.63	.40	.14	.01		
Moos Jaw.....			.01	.30	.68	.68	.69	.74	.75	.78	.75	.76	.76	.64	.24			
Scott.....		.01	.15	.48	.66	.74	.74	.74	.73	.77	.82	.77	.69	.41	.10	.01		
Rosthern.....			.02	.21	.53	.72	.77	.76	.83	.74	.81	.78	.73	.60	.16	.05		
Bradford.....				.14	.52	.72	.73	.76	.70	.67	.66	.63	.46	.26	.06			
Winnipeg.....				.07	.37	.65	.73	.76	.74	.70	.72	.72	.76	.65	.09			
Haileybury.....			.02	.35	.58	.63	.70	.67	.64	.68	.64	.62	.53	.51	.40	.04		
Woodstock.....				.06	.30	.65	.62	.68	.72	.75	.68	.67	.67	.53	.09			
Lindsay.....					.13	.54	.73	.79	.80	.72	.72	.71	.66	.55	.04			
Barrie.....				.21	.59	.72	.74	.71	.72	.74	.76	.70	.71	.58	.16			
Toronto.....				.18	.57	.73	.70	.76	.76	.77	.75	.75	.73	.72	.42	.03		
Kingston.....			T	.12	.43	.55	.69	.74	.74	.68	.66	.68	.63	.48	.13	T		
Ottawa.....				.31	.59	.68	.73	.78	.75	.72	.67	.71	.63	.53	.31			
Montreal.....			.03	.38	.64	.69	.78	.78	.77	.75	.70	.66	.59	.59	.14			
Cap Rouge.....				.16	.4	.64	.73	.70	.75	.76	.74	.69	.65	.55	.17	T		
Quebec.....				.13	.49	.63	.76	.79	.78	.77	.70	.73	.67	.61	.04			
Ste. Anne de la Pocatiere.....		.01	.25	.39	.49	.58	.62	.61	.64	.76	.74	.72	.57	.27	.01			
Sharbrooke.....			.02	.28	.54	.66	.66	.74	.68	.68	.65	.67	.63	.52	.24	.02		
Fredericton.....			.01	.15	.44	.50	.55	.62	.66	.64	.62	.63	.61	.53	.35	.02		
Charlottetown.....				.05	.03	.53	.61	.64	.67	.65	.54	.57	.54	.36	.15			
Napan.....					.20	.44	.55	.63	.64	.68	.67	.63	.56	.46	.06			
Wolfville.....				.08	.38	.46	.47	.51	.61	.68	.62	.61	.54	.43	.07			
Kentville.....				.01	.36	.51	.52	.56	.59	.56	.57	.57	.51	.38	.11			

## SUMMARY OF SUNSHINE RECORDS

SEPT., 1913	Shawigan Lake	Victoria	Salmon Arm.	Nanaimo.	Vancouver.	Alexand.	Tsumanville.	Sumnerland.	Kamloops.	Harper's Ranch.	Edmonton.	Lethbridge.	Medicine Hat.	Port Dunvegan.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Roosbarn.	Brandon.	Winnipeg.	Hatfield.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	St. Anne de la Pointe.	Sherbrooke.	Pederton.	Charlottetown.	Napan.	Wolfville.	Kentville.	
Registered duration in hours.....	177	198	209	166	173	171	221	238	204	150	204	258	241	215	132	261	200	232	233	232	188	208	212	190	192	220	237	106	223	223	200	213	200	211	192	172	166	161	157
Percentage of possible duration....	46	53	55	46	47	56	63	54	40	54	74	46	58	33	70	53	62	62	61	50	55	56	51	51	59	63	52	60	65	50	56	53	50	51	46	44	43	42	
Difference from average.....	—	+4	—	—	—	+13	—	—	—	—	—	—	—	—	—	+5	+10	—	—	+2	+7	—	+2	+1	+10	+8	+1	+13	+12	—	+11	—	—	+3	—	—	—		
Maximum percentage in one day....	84	86	98	85	90	83	93	89	85	82	87	94	88	84	58	97	88	91	91	91	84	97	90	77	88	93	92	92	86	85	85	92	94	90	82	86	84		
Date of maximum..	24	11	11	11	18	6	11	19	7	18	7	4	2	5	11	11	10	4-7	5	20	2	5	10	9	15	5	15	30	1-0	9	24	6	16	10	25	4	6	6	
Number of days completely cloud- ed.....	3	1	2	4	2	7	2	0	3	9	1	1	1	1	11	2	3	3	2	2	3	1	1	2	2	1	1	2	3	1	1	1	1	0	4	3	2	2	4

*Thunder Recorded--*

1. Rapid City, Nipigon, Hillview, Almasippi, Norquay, Kakabeka Falls, Bruce Mines, Kenora, Grasett, Abitibi, White River, Winnipeg, Minnedosa.
2. Paris, Kakabeka Falls, Iroquois Falls, Grasett, Schreiber, Abitibi, White Shore Lake, Kentville, Stoncliffe, White River, Porth Arthur, Barrie.
3. Georgetown, Brantford, Lost River, Agincourt, Aurora, Almonte, Wexford, Madoc, Brome, Pt. Lepreaux, Halkirk, St. Stephen, Alberni, St. John, Montreal, Ottawa, Toronto, Minnedosa, Edmonton, Chiloitin, Sherbrooke.
4. Alberni, Chilliwack, Pemberton Hatchery, Swift Current, Truro.
5. Rapid City, Rosthern, Brandon, Morden, Aitkensville, Vavenby, Chilliwack, Dunstable, Springdale.
6. Cartwright, Almasippi, Treherne, Norquay, Morden, Oakbank, Aitkensville, Winnipeg, Hillsdown, Halkirk.
7. Emsdale, Nipigon, Brantford, Norquay, Port Dover, Lucknow, Birnam, Bisco, Clinton, Bruce Mines, Chapleau, Haliburton, Rutherglen, Schreiber, Abitibi, Mistassini, Pt. Lepreaux, White River, Port Arthur, Barrie.
8. Westport, Muenster, Lucknow, Big Chute, Markdale, Cap Rouge, St. Stephen, Liverpool, Windsor, N.S., Halifax, Montreal, Kingston, Parry Sound, Moose Jaw, Swift Current.
9. Lost River, Hillview, Brandon, Almasippi, Treherne, Morden, Aitkensville, Shoal Lake, Vavenby, Princeton, Wilmer, Le Pas, Springdale.
10. Westport, Norquay, Winnipeg.
- 11.
12. Salmon Arm.
13. Muenster, Saskatoon, Pt. Lepreaux, Salmon Arm, Vavenby, Hydraulic, Tappen, Pemberton Hatchery, Monte Creek, St. John, Parry Sound, Swift Current.
14. Big Chute.
- 15.
16. Greenwood, Golden, Perry Siding.
17. Georgetown, Birnam, Madoc, Haliburton, Salmon Arm, Nelson, Grand Forks, Okanagan Mission, Wilmer, Nakusp, Jumping Pound, Port Stanley, Banff, Beaver Mines.
18. Rapid City, Fruitlands, Swift Current.
19. Cartwright.
20. Deer Park, Georgetown, Brantford, Agincourt, Hamilton, Lucknow, Paris, Wexford, Clinton, Copper Cliff, Bruce Mines, Toronto, Parry Sound, Barrie.
21. Salmon Arm, Greenwood, Crawford Bay, Grand Forks, Tappan, Nakusp, Pemberton Hatchery, Keremeos, Salt Spring Island.
22. Madoc, Little Qualicum.
23. Mistassini.
- 24.
25. Iroquois Falls, Wawaitin Falls, Abitibi
- 26.
27. Atlin.
- 28.
- 29.

*Aurorus Recorded—*

1. Pambrum II, Aitkensville IV, Ranfurly IV.
2. Cartwright IV, Aitkensville III, Le Pas, Halkirk, Ranfurly IV.
3. S. W. Point Anticosti.
4. Mistassini IV.
5. Mistassini III.
6. Cresecent Lake IV, Chaplin IV, Aweme III, Chicoutimi, Hillsdown IV, Ranfurly IV, Sion IV.
7. Cartwright IV, Cresecent Lake IV, Chaplin IV, Pambrum I, Muenster III, Waseca, Aweme I, Almasippi, Aitkensville II, Bisco II, Montague, Kenora II, Schreiber IV, Amos, Mistassini IV, Le Pas, Qu'Appelle, Edmonton, Hillsdown III, Halkirk, Ranfurly II, Sion IV.
8. Georgetown III, Waseca, Aitkensville IV, Poreupine, Amos, Okanagan Mission, Quebec, Halkirk, Ranfurly I, Sion IV, Barrie III, Sherbrooke III.
9. Muenster IV, Kakabeka Falls IV, Poreupine, White Shore Lake II, Amos, Okanagan Mission, Quebec, Hillsdown III, Halkirk, Ranfurly III, Sion IV, Wetaskiwin IV.
10. Chaplin V, Poreupine, Le Pas, Edmonton, Prince Albert II.
11. Mistassini IV.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
18. White Shore Lake III.
19. Poreupine, White Shore Lake III.
20. Sion IV.
- 21.
22. Aweme III, Treherne III, Kakabeka Falls IV, Halkirk, Ranfurly II, Sion IV.
23. Edmonton.
24. Chaplin IV, Muenster IV, Waseca, Cape Magdaleine, Quebec, Hillsdown IV, Halkirk.
25. Edmonton.
26. Qu'Appelle.
27. Waseca, Aitkensville IV, Halkirk, Ranfurly IV.
28. Aitkensville IV.
- 29.
30. Waseca, Hillsdown III, Halkirk.

## FORECASTS FOR SEPTEMBER 1913

The forecasts issued by this office at 11 p.m. each night, are for the 24 hours beginning at 8 a.m. the following day; and are published in most morning newspapers.

The number of these predictions issued during the month was 1257. These were divided as follows:

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	75	52	14	9	78.7
Saskatchewan.....	71	45	15	11	73.9
Manitoba.....	81	49	23	9	74.7
Lake Superior.....	119	84	26	9	81.5
Lower Lake Region.....	118	98	16	4	89.8
Georgian Bay.....	116	90	21	5	86.6
Ottawa Valley.....	94	74	18	2	88.3
Upper St. Lawrence.....	92	78	12	2	91.3
Lower St. Lawrence.....	122	89	21	12	81.6
Gulf.....	121	93	17	11	83.9
Maritime Provinces West.....	124	90	30	4	84.7
Maritime Provinces East.....	124	87	32	5	83.1
Total.....	1257	929	245	83	83.6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,  
Oct. 27th, 1913.



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

OCTOBER, 1913

No. 10

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## INTRODUCTION.

In compiling the present Review, the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## TEMPERATURE.

### BRITISH COLUMBIA.

The mean temperature on Vancouver Island and along the Lower Fraser River was 47°; in the Okanagan Valley, 42°; in the Kootenays, 40°; along the Thompson River, 43°; the North Columbia River 38°; and on the north coast and in the Queen Charlotte Islands, 46°. The difference from normal temperature was in the majority of instances negative and varied locally between 1° and 3°. White frost was recorded on three or four days on Vancouver Island and the Lower Mainland, and heavier frosts more frequently further into the interior.

### THE WESTERN PROVINCES.

In Alberta the month began with a temperature of 75°, but after the 3rd the weather became much cooler and heavy frosts were recorded on the 14th, and from the 20th until the close of the month. On the last day of the month several stations recorded a temperature of about zero. Temperature conditions in Saskatchewan and Manitoba were very similar to those which obtained in Alberta, but the range between the extremes was greater, the highest temperatures on the first of the month having in some instances exceeded 80°, while at some stations the minimum on the last day of the month was a few degrees below zero. The mean temperatures were from 2° to 5° below normal in Alberta, from 3° to 9° below in Saskatchewan and from 2° to 7° below in Manitoba. The average temperature reported from Southern Alberta was 37°, while for the remaining area of the western provinces the mean of the month averaged about 34°.

### ONTARIO.

The mean temperature for the Lake Superior Districts was about 42°; for the basin of the Upper St. Lawrence and Lower Ottawa Rivers, 50°; for the Georgian Bay counties, 48°; for that portion of the peninsula bordering on Lakes St. Clair and Erie and the Niagara River, 52°; and for the Lake Ontario counties, 50°. The difference from normal temperature was negative in the Lake Superior Districts, but positive over the remainder of the province, where it ranged from 1° to 5°, the greatest differences occurring along the Ottawa River.



## QUEBEC.

The temperature on the Middle St. Lawrence averaged 49°, on the Lower St. Lawrence 45°, in the Lake St. John district 46°, and in the north country 42°. These temperatures are greater than normal by about 5° along the St. Lawrence and in the Lake St. John District, and about 2° in the northwestern districts.

## THE MARITIME PROVINCES.

The month was remarkably warm in the Maritime Provinces, the excess over normal ranging from 6° to 11°.

## PRECIPITATION.

### BRITISH COLUMBIA.

Except in the Kootenays (and locally on Vancouver Island and at the mouth of the Fraser River), precipitation was considerably greater than normal. The mean amount on Vancouver Island was five inches, which fell on an average of fourteen days; on the Lower Fraser six and a half inches on fifteen days; along the Upper Fraser two and one-half inches on eleven days; in the Okanagan Valley and the West Kootenay, one and three-quarters on nine days; in the East Kooteney, less than half an inch on four days; along the Thompson River, one and one-half inches on nine days; along the North Columbia River, three and three-quarter inches on ten days; along the north coast and in the Queen Charlotte Islands, eleven inches on twenty-two days.

### THE WESTERN PROVINCES.

In Alberta the amount of precipitation ranged from little more than a trace to an inch and a quarter. The average amount for the whole province was about half an inch. In Saskatchewan the precipitation averaged one inch along the Qu'Appelle River; somewhat more than half an inch in the basin of the South Saskatchewan River and in the vicinity of the Saskatchewan Forks; while in the basin of the North Saskatchewan River less than a quarter of an inch was recorded. In Manitoba the precipitation was very evenly distributed and averaged nine-tenths of an inch for the whole province.

### ONTARIO.

The precipitation in Ontario was in excess of the normal, except in the West Central, Lake Ontario counties and the East Central counties. In these districts the average was less than three inches, which is less than normal. In the Lake Huron counties the fall was exceptionally heavy, averaging nearly five inches. In the District of Algoma deficiencies were registered locally.

## QUEBEC.

Along the Middle and Lower St. Lawrence the precipitation averaged about five inches or about two inches more than normal. In the country north of the river the amount averaged about three and one-quarter inches.

## THE MARITIME PROVINCES.

In New Brunswick the amount averaged five and one-half inches, in Nova Scotia and Prince Edward Island eight inches. The excess over normal was about three inches in New Brunswick, and between four and five inches in Nova Scotia.

## HIGH AREAS.

Eleven areas of high pressure were charted. One first appeared in the Yukon Territory, two on the Alaskan coast, one on the South Coast of British Columbia, five in the North Pacific States and two in the neighbourhood of James Bay.

The two latter areas passed to the Maritime Provinces and Newfoundland; of the remaining nine areas, one travelled to the northward of Lake Superior, one over Ontario and down the St. Lawrence Valley, the remainder all moved well to the southward of the Great Lakes. The Yukon area brought the coldest weather of the month, the temperature between the 27th and 28th falling below zero generally, in Saskatchewan, and locally in Manitoba.

## LOW AREAS.

Thirteen areas of low pressure were charted. Four first appeared in the far northwestern portion of the continent, one on the west coast of Vancouver Island, one in Alberta, two in the Middle Pacific States, three in the Southwestern States, one in the Gulf of Mexico and one near the West India Islands.

The general track of the areas was more to the southward over the continent than for a considerable period, as many as seven of the systems passing either over or to the southward of the Lower Lake Region, while of the remainder five crossed the Upper Lake Region. After leaving the Great Lakes, the depressions traversed Eastern Canada, Labrador and Newfoundland, and thence out to sea. Much unsettled showery weather was experienced, but owing to the fact that but few of the systems were very energetic, gales were only occasionally experienced.

## ATMOSPHERIC PRESSURE.

The mean atmospheric pressure for October, considering the telegraphic reporting stations to be indicative of general conditions, was subnormal in Ontario, Western Quebec, Southern New Brunswick and the mainland of Nova Scotia, while in other parts of Canada the value was in excess of the normal. Subnormal departures were generally from 0.03 to 0.05 of an inch, while the positive differences reached 0.06 of an inch in Cape Breton Island and Northern Alberta, and 0.08 of an inch on the Coast of British Columbia.

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on October 1st, 1913.

Instrument—Dines Meteorograph.

Fell—100 km. distant S.75° E.

Beginning of Ascent—1 a.m. G.M.T.

Maximum Height—15.1 km.

Barometer—731 mm.

Minimum Temperature = -60.0° C.

Temperature = 14.0° C.

Direction of flight at Beginning—North, in light wind.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	731	14.0	
0.5	712	17.5	14.0
1.0	671	15.5	12.0
1.5	631	10.0	8.5
2.0	593	6.5	4.5
2.5	558	2.5	
3.0	523	0.0	- 1.0
3.5	491	-3.0	- 4.5
4.0	461	-8.5	
4.5	433	- 8.5	- 9.5
5.0	406	-10.5	-12.5
5.5	378	-15.0	-16.0
6.0	352	-18.5	-19.5
6.5	328	-22.0	-23.0
7.0	306	-26.0	-26.5
7.5	284	-30.0	
8.0	264	-34.0	
8.5	247	-37.5	
9.0	228	-42.0	
9.5	212	-46.0	
10.0	198	-49.5	
11.0	169	-54.0	
12.0	144	-58.0	
13.0	123	-55.0	
14.0	106	-58.5	
15.0	89.5	-60.0	
15.1	88	-60.0	

## WINDS, OCTOBER, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	7359	504							
Prince Rupert.....									
Victoria.....	4472	457	33	W	13	1	3	13	N & W
Point Garry.....	6695	551	33			4	6	7	W
Vancouver.....									
Kamloops.....									
ALBERTA.									
Edmonton.....	3766	242	18	NW	13-23-4			10	NW
Calgary.....	2675	291	23	NW	22		2	7	NW
SASKATCHEWAN.									
Battleford.....	6296	690	48	NW	13	1	7	19	
Prince Albert.....	* 5760	266	23	NW	14		1	8	
Swift Current.....	7812	592							SW
Qu'Appelle.....	7442	453	31	NW	14	1	7	20	W
MANITOBA.									
The Pas.....	7713	681	42		14				W
Winnipeg.....	8659	512	38	NW	27	2	12	11	NW
ONTARIO.									
Port Arthur.....	* 2223	159	13	NE	7				NW
White River.....	4310	319	18	SW	12			8	NW
Cochrane.....	\$ 3024	418	29	NW	21		3	3	S & W
Parry Sound.....	5822	372	25	SW	23		7	8	N
Souhampton.....									
Pelee Island.....	8344	714	32	W	20	7	10	3	
Woodstock.....	5778	355	30	SW	28	1	5	17	NW
Guelph.....	£ 4821	397							NW
Toronto.....	2993	561	35	W	21	3	8	10	NW
Kingsford.....	7068	455							NE
Stonecliffe.....	3303	196	14	W	21			3	W
Ottawa.....									
QUEBEC.									
Montreal.....	9620	557	32	NE	26	4	11	11	NE
Eberbrooke.....									
Quebec.....	11277	764	53	NE	20	11	8	9	NE
Father Point.....	9783	827	35	W	21	10	11	2	E
Anticosti, SW.....									
Harrington.....									
NEW BRUNSWICK									
Pt. Escaumiac.....	12079	1010	58	NE	14	9	12	5	NE & S
Fredericton.....	4680	413	26	S	21		3	11	NW
St. John.....	8745	702	38	SW	21	4	10	8	N & SE
Pt. Lepreaux.....	9493	534	48	SW	21	7	10	9	E
NOVA SCOTIA									
Yarmouth.....	7729	756	42	SW	21	2	7	12	E & S
Wolfville.....									
Halifax.....	8334	629	39	NE	15	4	7	11	S
Sable Island.....	5968	433							NE
Flat Point.....	10133	735	42	SE	11	8	7	11	SE
PRINCE EDWARD ISLAND									
Charlottetown.....	5765	410	30	S	21	1	4	11	NE

\* Record for 28 days only. c Temporary exposure, very sheltered. \$ Record for 15 days only. £ Record for 25 days only. £ Record for 24 days only.

## TEMPERATURE AND PRECIPITATION AT STATION S IN THE DOMINION OF CANADA. OCT., 1913.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.						PRECIPITATION.						Days with 01 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.			
				Mean.	Difference from average.	1 Y's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.								
BRITISH COLUMBIA—																						
S. Vancouver Island																						
Alberni (Beaver Creek).....	49 15	124 49	300	47.4	-3.4	18	65.0	2	27.0	4-5	15.9	4.17	-1.66	0.90	16	15	..	..				
Clayoquot.....	49 11	125 55	27	47.8	-3.1	14	63.0	1-4	31.0	31	11.6	8.10	-0.65	1.91	15	16	..	1				
Cloos.....	49 10	124 57	33	47.0	—	2	62.0	1	32.0	29	12.7	5.40	—	0.95	11	20	..	..				
Cobble Hill.....	48 25	123 42	33	47.3	—	1	64.2	12	30.5	30	14.8	3.80	—	1.10	11	20	..	..				
Cowichan (Tzouhalem).....	48 25	123 42	170	47.7	—	1	64.8	2	29.4	5	16.0	2.98	—	1.02	10	21	..	..				
Departure Bay.....	48 7	124 11	46.7	46.7	—	1	63.8	11	31.4	30	12.6	4.13	—	0.97	12	19	..	4				
Gillis Bay.....	48 5	124 11	44.5	44.5	—	1	63.0	11	32.0	16-30	13.2	5.38	—	1.64	13	18	..	..				
Ladysmith.....	49 10	123 37	125	47.9	-1.0	13	62.8	1-11	31.0	29	15.8	3.98	—	1.25	14	17	..	..				
Nanaimo.....	49 17	124 12	130	46.3	-1.0	2	65.0	11	25.0	30	13.7	3.70	+0.39	0.73	11	20	..	2				
Nanose Bay.....	48 50	123 20	46.9	46.9	—	4	61.0	1	35.0	30	11.8	3.54	—	1.13	11	19	..	1				
Salt Spring Island.....	48 50	123 20	46.9	46.9	—	4	61.0	1	35.0	30	11.8	3.54	—	1.13	11	19	..	..				
Shwagan Lake.....	48 41	123 44	25	48.0	—	1	66.0	2	30.0	29	14.2	3.03	—	0.95	12	19	..	..				
Sooke.....	48 24	123 19	55	48.7	-2.8	21	62.2	2	35.0	5	11.2	3.63	+1.37	1.06	15	16	..	2				
Victoria.....	48 24	123 19	55	48.7	-2.8	21	62.2	2	35.0	5	11.2	3.63	+1.37	1.06	15	16	..	..				
N. Vancouver Island																						
Holberg.....	50 39	123 18	47.0	47.0	—	5	62.0	4-27	32.5	26	13.1	11.70	—	1.90	24	7	..	..				
Quatsino.....	50 32	127 40	45.1	45.1	-3.2	17	58.0	2	33.0	31	11.4	9.19	+2.02	1.10	28	3	..	..				
Triangle Island.....	50 52	129 5	680	47.0	—	5	62.0	3	32.5	26	13.1	11.70	—	1.90	24	7	..	..				
Lower Fraser River																						
Agassiz.....	49 14	121 31	52	47.7	-3.0	23	66.0	1-3	30.0	5	20.9	8.84	+3.07	1.23	23	8	..	..				
Chilliwack.....	49 10	121 57	21	47.8	-2.4	11	67.0	1	28.0	5	12.7	7.84	+2.44	1.80	20	10	..	5				
Hops.....	49 25	121 55	600	46.3	-1.4	4	66.5	1	31.5	25	12.9	7.40	—	1.64	14	17	..	..				
Ladner.....	49 05	123 4	49.6	49.6	+0.5	11	64.0	3	29.0	29	13.3	3.40	+0.75	1.50	8	23	..	1				
New Westminster.....	49 13	122 54	330	47.7	-1.7	26	64.0	1	32.0	19	12.5	6.34	+0.72	1.86	16	15	..	..				
North Nicomen.....	49 12	122 2	69	48.7	-1.5	20	68.0	1	32.0	29	13.0	10.31	+2.84	2.79	16	15	..	3				
Pemberton Hatchery.....	50 20	122 33	49.0	49.0	—	6	63.0	2	25.0	25	13.9	3.22	—	1.21	7	24	..	..				
Pemberton Meadows.....	49 16	122 23	125	47.0	—	4	66.0	2	34.0	29-31	12.0	9.55	—	2.26	20	11	..	7				
Ruskin (Stave Falls).....	49 21	123 17	45.7	45.7	-2.5	18	59.0	3	26.0	29	13.6	4.29	+0.99	0.76	16	15	..	..				
Stevenson (Garry Point).....	49 17	123 6	136	47.6	-1.8	13	60.0	1	33.3	30	10.2	6.19	+0.45	1.71	17	14	..	6				
Vancouver.....	49 17	123 6	136	47.6	-1.8	13	60.0	1	33.3	30	10.2	6.19	+0.45	1.71	17	14	..	..				
Upper Fraser River																						
Babine Lake.....	55 38	126 26	4180	32.3	—	4	25	36.0	—	12.0	30	13.7	4.53	+1.65	0.75	19	12	..	..			
Barkerville.....	51 40	123 0	3100	34.7	-3.1	10	56.0	1-23	11.0	31	19.5	1.73	+0.57	0.89	12	19	..	..				
Chilcoitin (Big Creek).....	50 52	129 5	680	35.1	—	2	67.0	3	17.0	25-31	14.2	1.90	—	0.71	10	21	..	..				
Fort George.....	54 28	124 12	2280	37.1	+0.2	20	65.0	2	12.5	31	17.7	1.79	+0.66	0.83	11	20	..	..				
Hydraulic.....	54 28	124 12	2280	37.1	+0.2	20	65.0	2	12.5	31	17.7	1.79	+0.66	0.83	11	20	..	..				
Queensell.....	52 69	122 30	1700	39.6	-3.3	18	72.0	2	21.0	25	16.3	2.97	+1.80	1.05	9	22	..	..				
Okanagan Valley																						
Duck Lake Ranch.....	50 36	119 20	1400	42.7	—	1	78.0	1	24.0	30	17.5	1.81	—	0.90	12	19	..	..				
Hedley.....	49 36	120 10	1771	43.7	—	8	71.0	1	25.0	25-29	17.7	1.67	—	0.22	10	21	..	..				
Hedley (Nickel Plate).....	49 36	120 10	1771	43.7	—	8	71.0	1	25.0	25-29	17.7	1.67	—	0.22	10	21	..	..				
Keremeos.....	49 15	119 22	1200	43.1	-1.9	14	68.0	1	27.0	31	15.6	1.59	—	0.57	11	20	..	..				
Kelowna (Okanagan Mission).....	49 15	119 22	1200	43.1	-1.9	14	68.0	1	27.0	31	15.6	1.59	—	0.57	11	20	..	..				
Penticton.....	49 29	119 35	1650	45.0	—	7	73.0	1	21.0	29	18.3	1.48	—	0.57	13	18	..	..				
Princeton.....	49 29	120 29	1650	39.7	-3.9	19	74.0	1-16	18.0	10-30	29.4	1.17	+0.38	0.47	8	23	..	..				
Richland.....	49 36	119 40	1100	43.2	—	6	72.0	1	17.0	30-31	19.1	2.76	—	1.25	10	21	..	..				
Summerland.....	49 36	119 40	1100	43.2	—	6	72.0	1	17.0	30-31	19.1	2.76	—	1.25	10	21	..	..				
Vernon (Coldstream Ranch).....	50 14	119 15	1582	42.8	-2.5	20	71.0	1	23.0	31	16.3	1.61	+0.87	0.80	9	22	..	..				
West Kootenay																						
Cawford Bay.....	49 45	116 45	2000	42.7	—	2	62.0	1-2	21.0	30	17.9	1.93	—	0.47	7	24	..	..				
Croston.....	49 2	118 27	1746	41.2	—	2	63.0	1-12	21.0	30	19.8	0.66	—	0.20	7	24	..	..				
Grand Forks.....	49 2	118 27	1746	36.5	—	3	70.0	1	23.0	31	16.8	1.80	—	0.50	10	21	..	..				
Greenwood.....	49 1	118 6	2400	39.7	—	1	70.0	1	13.0	29	24.8	1.05	—	0.40	7	24	..	..				
Howse.....	49 52	117 0	1752	41.1	—	2	69.0	3	22.0	31	20.0	1.74	—	0.44	13	18	..	..				
Keslo.....	49 52	117 0	1752	41.1	—	2	69.0	3	22.0	31	20.0	1.74	—	0.44	13	18	..	..				
Nakusp.....	49 30	117 21	1760	40.7	—	2	65.0	1	22.5	31	13.4	1.97	—	0.63	10	21	..	..				
Nelson.....	49 30	117 21	1760	40.7	—	2	65.0	1	22.5	31	13.4	1.97	—	0.63	10	21	..	..				
Perry Sliding.....	49 6	117 48	1700	41.8	-2.3	11	70.0	1	24.0	27-31	19.0	1.39	-0.27	0.31	9	22	..	..				
Roseland.....	49 6	117 48	1700	39.1	—	1	62.0	1	26.0	31	10.9	1.56	—	0.85	4	27	..	..				
Waneta.....	49 6	117 48	1700	39.1	—	1	62.0	1	26.0	31	10.9	1.56	—	0.85	4	27	..	..				
East Kootenay																						
Cranbrook.....	49 30	115 60	39.5	—	9	73.0	1	9.0	31	25.9	0.44	—	0.35	3	28	..	..					
Elko (Fruitlands).....	49 1	115 6	2654	42.9	-1.6	17	73.0	2	20.0	30	19.2	0.45	-0.64	0.22	4	27	..	..				
Invermere.....	50 30	116 2	2630	38.3	—	4	64.0	3	15.0	31	17.9	0.42	—	0.13	6	25	..	..				
Wilmer.....	50 34	116 14	3300	38.3	—	4	64.0	3	15.0	31	17.9	0.42	—	0.13	6	25	..	..				
Thompson River																						
Armstrong.....	50 32	119 7	1180	40.6	—	1	70.0	1	15.0	31	20.7	2.48	—	1.01	11	20	..	..				
Ashcroft.....	50 32	119 7	1180	40.6	—	1	70.0	1	15.0	31	20.7	2.48	—	1.01	11	20	..	..				
Enderby.....	50 41	119 29	1245	43.8	-0.3	11	75.0	2	17.0	30	23.0	1.11	+0.04	0.25	9	22	..	..				
Fraser's Ranch.....	50 41	119 29	1245	43.8	-0.3	11	75.0	2	17.0	30	23.0	1.11	+0.04	0.25	9	22	..	..				
Kamloops.....	50 0	120 39	2120	44.7	-3.8	21	72.0	1	22.0	31	14.9	1.04	+0.51	0.26	8	23	..	..				
Monte Creek.....	49 3	119 6	2120	44.3	-3.8	21	72.0	1	21.0	20	20.7	1.42	—	0.50	11	20	..	..				
Nicola Lake.....	50 42	119 35	1152	42.0	-0.2	13	72.0	1	19.0	30	15.4	0.99	+0.10	0.50	4	27	..	..				
Salmon Arm.....	50 42	119 35	1152	42.3	-2.1	11	72.0	2	20.0	31	16.3	1.00	+0.48	0.69	9	22	..	..				
Salmon Arm (Exp. Farm).....	50 42	119 35	1152	42.3	-2.1	11	72.0	2	20.0	30	18.6	1.84	—	0.60	7	24	..	..				
Tappen.....	50 41	120 23	1350	43.4	—	1	72.0	1	21.0	3	18.8	1.72	—	0.20	13	18	..	..				
Tranquille.....	50 41	120 23	1350	43.4	—	1	72.0	1	21.0	3	18.8	1.72	—	0.20	13	18	..	..				
Vancouver.....	51 36	119 35	1400	41.3	—	2	69.0	2	21.0	25	18.4	5.75	—	0.31	11	20	..	..				
North Columbia River																						
Frederic.....	51 14	117 29	4072	33.8	-3.3	1	35.0	1	16.0	31	10.6	1.50	+2.11	0.88	13	18	..	..				
Chilcoit.....	51 0	118 6	1746	41.0	-3.0	11	65.0	1	12.0	31	19.2	2.53	+1.22	1.15	3	28	..	..				
Revelstoke.....	51 0	118 6	1746	41.0	-3.0	11	65.0	1	12.0	31	19.2	2.53	+1.22	1.15	3	28	..	..				
Revelstoke.....	51 0	118 6	2550	42.3	-0.7	14	64.0	1	24.0	25	15.4	4.08	-1.14	0.71	15	16	..	..				

TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCT., 1913.

\*Stations not furnished with Registering Thermometers

STATION.				TEMPERATURE							PRECIPITATION								
	Latitude N.	Longitude W.	Elevation above sea level, in feet.	Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 0.1 or more in.	No. of fair days.	No. of aurora.	No. of thunderstorms.	No. of fogs.
BRITISH COLUMBIA—CON.																			
North Coast																			
Beila Coola .....	52	40	126 64	130	44	5	14	58 0	2-20	30.0	25	12 0	12 42	+6.32	2 31	20	11	6	2
Prince Rupert .....	55	18	130 18	170	45	1	6	55.0	22	36.9	17 30	9 9	15.91	—	1.82	26	6	1	1
Stewart .....	66	1	130 1	215	43	9	1	59 0	1	28 0	25	13 6	7 44	—	1.56	16	18	1	1
Terrace .....	54	30	128 30	545	43	9	1	59 0	1	28 0	25	13 6	7 44	—	1.56	16	18	1	1
Queen Charlotte Islands																			
Ikeda Bay .....	52	17	131 7	6	49.1	—	5	60.0	22	38 0	15	8 3	10 57	—	1 38	25	6	1	5
Masset .....	53	68	132 9	10	45.4	—	15	62.0	19	32 0	30	12 5	8 59	+3.08	1 10	27	4	1	1
Yukon Boundary																			
Atlin .....	59	35	133 38	2240	32 4	—	7	48.0	4	17.0	12	9 4	1 46	—	0.20	17	14	4	1
YUKON—																			
Carcross .....	60	11	134 34	2171	31 4	—	6	50 0	1	12 0	27	12.5	2 70	—	0 65	8	23	1	1
Dawson .....	64	4	139 29	1200	31 4	—	6	50 0	1	12 0	27	12.5	2 70	—	0 65	8	23	1	1
ALBERTA—																			
N. Saskatchewan River																			
Cambridge .....	54	8	114 42	33 8	—	—	—	74 0	1	9 0	30	23 9	0 67	—	0 30	5	26	1	1
Coronation .....	55	62	112 17	33 8	—	—	—	74 0	1	9 0	30	23 9	0 67	—	0 30	5	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15	7	26	1	1
Edmonton .....	53	33	113 30	2158	37 4	—	8	30 78 0	1	11 5	30	21 7	0 50	-0.26	0 15				



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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.						
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of Autumns.
SASKATCHEWAN—																	
Qu'Appelle River																	
Broadview	50 23	102 33	1960														
Brownhill (Grenfell P.O.)	50 23	102 53	1957	33.7	— 3.1	19	82.0	2	— 3.0	28	20.1	1.62	+0.90	0.90	7	24	..
Buchanan	50 59	102 55	1658	32.4	—	1	70.3	3	— 5.2	28-29	21.8	1.31	—	0.32	8	23	1
Crescent Lake	49 12	103 4	1888	35.1	— 6.9	12	80.0	2	— 4.0	27-28	19.5	0.74	+0.20	0.60	4	27	..
Estevan	49 12	103 4	1888	35.8	—	1	81.4	1	— 2.0	28	23.5	1.99	—	0.55	5	26	..
Fort Qu'Appelle	51 8	103 21		32.3	—	6	66.0	14	0.0	28	16.1	1.30	—	0.50	5	24	..
Hubbard (Dramague)	52 12	105 9		34.0	—	8	72.0	1	— 6.0	27	22.3	0.56	—	0.56	1	30	..
Imperial	51 22	105 23		32.1	— 6.6	24	73.0	2	— 5.0	28	19.7	2.20	—	1.40	4	27	..
Indian Head	50 28	103 40	1924	32.1	—	2	71.0	3	— 3.0	28	19.2	0.44	—	0.20	6	27	..
Kamsuck	50 21	105 35	1759	36.6	— 3.6	18	75.0	2	— 2.0	28	22.2	0.92	+0.53	0.67	4	27	1
Moosomin	50 0	101 37	1884	31.1	— 9.3	12	77.0	1	— 4.0	27	22.8	1.31	+0.55	0.70	5	26	..
Muenster (St. Peter's Mon.)	52 0	105 0	1870	33.4	—	8	65.0	1-13	— 2.0	28	19.7	0.57	—	0.30	5	26	3
Pilger	52 25	105 9		33.9	—	1	77.0	1	— 2.5	28	20.2	0.48	—	0.24	6	25	..
Ponon (Gatesgarth)	50 20	105 0	1879	35.6	— 5.1	15	76.0	2	— 2.0	27	23.0	1.04	+0.46	0.61	5	26	..
Qu'Appelle	50 30	103 47	2115	34.2	— 4.8	29	72.0	2	— 4.0	28	18.6	1.58	+0.45	0.70	9	22	1
Rogin	50 27	104 37	1885	33.4	— 6.1	26	72.0	2-13	— 2.0	28	22.5	0.72	+0.63	0.50	5	26	..
Strongfield	50 39	102 4		32.1	—	7	76.5	13	—	28	22.6	1.66	—	0.65	6	25	..
Yarbo (Fairfield)	49 49	104 9		35.5	—	2	78.0	1	— 2.0	27	23.2	1.15	—	0.40	3	28	..
Yellow Grass	49 49	104 9		35.5	—	2	78.0	1	— 2.0	27	23.2	1.15	—	0.40	3	28	..
Yorkton	51 11	102 29		34.4	—	4	70.0	14	— 2.0	28-29	21.3	0.61	—	0.38	3	28	..
S. Saskatchewan River																	
Chaplin	50 26	108 39	2202	33.8	— 6.9	28	71.0	1	— 4.0	28	19.3	0.62	0.12	0.25	7	24	..
East End (Divide)	49 41	108 49		34.0	—	1	76.0	1	— 0.0	28	19.1	0.18	—0.26	0.10	3	28	..
Kelvinhurst (Nabyla)	51 46	108 10		34.0	—	2	65.0	1	— 0.4	28	19.8	0.95	—	0.70	5	26	..
Kinderley	50 21	108 29	3500	35.1	—	1	73.0	1	— 0.8	28	21.6	0.95	—	0.35	2	29	..
Kintore	49 21	109 29		33.3	—	4	72.0	2	— 4.3	28	25.2	0.20	—	0.16	3	28	..
Larchmont (Gleobryan)	51 20	108 57		36.2	— 6.8	28	74.0	1	— 3.0	28	23.1	0.35	—0.36	0.24	4	27	1
Rathmullen	50 20	107 45	2439	36.2	— 6.8	28	74.0	1	— 3.0	28	23.1	0.35	—0.36	0.24	4	27	..
Swift Current	50 20	107 45	2439	36.2	— 6.8	28	74.0	1	— 3.0	28	23.1	0.35	—0.36	0.24	4	27	..
N. Saskatchewan River																	
Anglin	52 41	108 20		33.8	—	1	83.0	1	— 10.0	28	26.1	0.21	—	0.18	2	29	2
Battleford	52 41	108 20	1620	37.1	— 3.5	23	78.0	1	— 0.0	28	19.1	0.18	—0.26	0.10	3	28	..
Luseland	52 5	109 24		33.6	—	3	73.0	1	— 8.0	27	25.2	0.12	—	0.12	1	30	..
Onio Lake	53 62	109 49		22.8	—	6	78.0	1	— 0.0	28-29	23.7	—	—	—	..	..	..
Prince (Meola)	51 0	108 20	1700	33.0	—	6	72.0	1	— 5.4	28	25.7	0.42	—	0.20	3	28	..
St. Walburg	51 69	109 30		33.0	—	3	72.0	1	— 5.4	28	25.7	0.42	—	0.20	3	28	..
Scott (Ex. Farm)	53 6	109 30		32.8	—	6	72.0	1	— 4.0	28	22.5	0.10	—	0.05	2	29	3
Wasco	53 6	109 30		32.8	—	6	72.0	1	— 4.0	28	22.5	0.10	—	0.05	2	29	3
The Saskatchewan Forks																	
Melfort	52 47	104 30		32.1	—	7	65.0	1	— 1.0	28	20.2	0.47	—	0.18	4	27	..
Prince Albert	53 10	104 0	1432	36.0	— 3.8	29	69.0	1	— 3.0	28	19.6	0.88	+0.02	0.36	7	24	..
Rosethorn	52 40	106 20	1657	32.1	—	2	69.0	2	— 0.7	19	19.4	0.29	—	0.18	3	28	..
Saskatoon	52 16	106 30	1671	36.8	— 4.6	15	69.2	2	— 1.0	29	19.0	0.49	—0.23	0.31	3	28	..
Lower Saskatchewan River																	
Lost River	53 17	104 21		31.0	—	3	63.0	1	— 3.0	28-29	18.7	0.72	—	0.27	4	27	..
MANITOBA—																	
Qu'Appelle and Assiniboine Rivers																	
Aweme (St. Albans)	49 42	99 33	1180	35.6	— 1.8	29	81.5	2	— 1.5	29	22.0	1.03	—0.03	0.49	12	19	3
Boisvein	50 25	101 1	1703	31.3	—	2	80.0	3	— 5.9	28-29	19.8	1.07	—	0.72	3	28	..
Brandon	49 51	99 57	1176	34.2	— 4.3	26	81.3	2	— 3.0	23	23.4	0.73	+0.07	0.60	3	28	..
Carman	49 31	98 0	872														
Cypress River	49 33	99 3	1232														
Hillview	49 55	100 33	1400	34.7	— 4.3	28	79.0	2	— 2.0	29	20.4	1.48	+0.18	0.65	7	24	..
Minnedosa	50 15	99 50	1699	34.2	— 6.4	30	78.0	2	— 0.2	29	20.0	0.98	—0.39	0.42	8	23	..
Ninette	49 24	99 38	1393														
Ninza	49 14	99 51	1649	36.1	—	8	82.0	3	— 7.0	28-29	25.2	0.96	—	0.45	3	28	..
Pierson	49 24	100 68	1400														
Pipestone	49 24	100 68	1400														
Portage la Prairie	49 67	98 17		36.9	— 5.8	23	79.0	2-3	— 6.0	29-30	21.9	1.29	—0.19	0.83	4	27	..
Portage la Prairie (2)	49 56	98 17		37.1	—	6	79.0	3	— 8.0	30	21.5	0.88	—	0.43	4	27	..
Russell	50 59	101 20		33.8	— 2.1	21	75.0	3	— 2.0	28	17.0	0.98	—0.09	0.33	6	25	..
Souris	49 36	98 40	1212	36.8	— 4.4	74	74.0	4	— 5.0	29	24.8						
Therma	49 36	98 40	1212	36.7	— 5.2	18	78.0	2	— 3.0	29	24.8						
Virden	49 51	100 55	1444	36.6	— 5.8	8	80.0	2	— 2.0	29	25.9						
The Red River																	
Almasippi	49 14	99 20		36.8	— 6.2	11	79.0	2	— 2.0	29	23.2	1.27	—	0.93	5	26	2
Morden	49 11	98 6	978	37.6	—	9	78.0	1	— 3.0	29	21.1	1.10	—	0.69	4	27	1
Oak Bank	49 57	96 42	800	36.0	— 4.2	18	71.5	2	— 0.0	29	17.6	0.75	—0.68	0.36	4	27	1
Stony Mountain	50 40	97 14	803	35.9	— 4.9	31	77.0	1	— 2.0	29	25.9	0.60	—0.44	0.50	6	23	..
Winnipeg	49 53	97 7	760	36.7	— 4.8	40	73.4	2	— 5.0	29	17.6	0.77	—0.75	0.45	11	20	1



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STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.							PRECIPITATION.					Days with 01 or more.	No. of fair days	No. of aurora	No. of thunderstorms	No. of logs.															
				Mean.	Difference from average.	Yr's observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.																					
MANITOBA—Continued																																			
Dauphin Lake and River																																			
Boreas River.....	52 18	97 23	710																																
Dauphin.....	51 8	160 2	957	35.0	—	7	79.0	3	1.0	29-30	21.1	0.12	—	0.12	1	30	—	—	—																
Moose Horn Bay (Athabasca-ville).....	51 15	99 33	—	34.2	—	4	67.5	3	4.6	29	16.8	1.32	—	0.86	9	22	4	—	—																
Lake Winnipegosis																																			
Le Pas.....	62 6	101 15	1112	31.4	—	3	62.2	1	2.0	27	14.6	0.61	—	0.25	7	24	1	—	—																
ONTARIO—																																			
The Lake Superior Districts																																			
Rainy River																																			
Fort Frances.....	49 48	9 32	1102	54.7	—	1	88.0	26	30.0	9	22.2	2.81	—	1.54	10	21	—	—	—																
Keora.....	49 48	9 32	1102	53.8	-7.7	12	61.0	3-4	6.0	28	13.4	2.36	+0.73	2.01	10	21	—	—	—																
Shoal Lake.....	49 48	9 32	1102	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
Thunder Bay																																			
Kakabeka Falls.....	48 20	89 26	912	38.2	—	5	74.0	3	1.0	22	22.4	3.54	—	1.50	11	20	1	3	—																
Port Arthur.....	48 27	89 12	644	39.5	-2.1	31	63.0	1	8.0	22	17.0	3.73	+1.20	2.06	12	19	—	—	—																
Schreiber.....	48 30	87 15	933	39.2	-0.8	14	65.8	10	11.2	29-30	18.2	5.04	—	3.48	11	20	2	1	—																
Algoma																																			
Biscoe.....	40 70	82 11	1333	41.9	—	1	72.9	7	6.2	31	15.5	3.80	—	0.65	11	20	—	—	—																
Bruce Mines.....	46 16	83 55	895	47.1	+1.5	15	73.0	6-7	14.0	31	16.8	2.46	-0.83	0.80	10	21	—	—	—																
Chapleau.....	46 16	83 55	895	47.1	+1.5	15	73.0	6-7	14.0	31	16.8	2.46	-0.83	0.80	10	20	—	—	—																
Copper Cliff.....	46 30	80 59	—	45.3	—	6	76.0	7	12.0	31	14.5	4.23	—	1.46	12	19	—	—	—																
Porcupine.....	45 40	82 14	—	40.6	—	2	74.0	11	10.0	31	17.6	1.53	—	0.78	8	23	—	—	—																
Providence Bay.....	48 35	85 16	1252	46.9	—	3	69.0	5	17.0	31	13.2	4.21	—	0.91	12	19	—	—	—																
Timmins (Sandy Falls).....	48 35	85 16	1252	46.9	—	3	69.0	5	17.0	31	13.2	4.21	—	0.91	12	19	—	—	—																
White River.....	48 35	85 16	1252	46.9	—	3	69.0	5	17.0	31	13.2	4.21	—	0.91	12	19	—	—	—																
Nipissing																																			
Cochrane.....	49 2	81 0	948	44.7	—	2	73.0	7	10.0	31	15.6	3.03	—	0.66	13	18	—	—	—																
Haleybury.....	47 29	79 39	687	44.6	-2.1	19	77.8	7	13.3	31	14.6	4.29	+1.58	0.90	15	16	—	—	—																
Iroquois Falls.....	48 45	80 40	850	41.0	—	1	74.9	7	10.2	31	16.2	2.37	—	0.72	10	21	—	—	—																
Montreal River.....	47 8	79 29	—	—	—	3	79.0	7	—	—	—	4.30	—	0.90	12	19	—	—	—																
Upper Ottawa River																																			
Rutherford (Lake Talon).....	46 15	74 48	—	45.1	+4.8	19	81.0	7	15.0	22-31	18.0	3.48	+0.72	0.63	11	20	1	4	—																
Stoneliff (Rockliffe).....	46 9	78 6	557	46.0	+2.9	29	80.0	7	20.0	31	18.9	3.00	+0.59	0.82	16	15	—	—	—																
Upper St. Lawrence and Lower Ottawa Rivers																																			
Almoute.....	45 12	76 13	390	49.5	—	2	77.0	6-10	22.0	31	18.4	3.14	—	0.73	13	18	—	—	—																
Bloomfield.....	43 59	77 21	260	51.6	+2.6	13	75.0	7-12	24.0	31	17.3	3.66	+0.99	1.17	7	24	—	—	—																
Coldwater.....	44 13	78 29	285	51.1	+2.7	39	78.9	7	21.7	31	15.2	2.98	+0.28	0.81	15	16	—	—	—																
Kingston.....	44 13	76 29	285	51.1	+2.7	39	78.9	7	21.7	31	15.2	2.98	+0.28	0.81	15	16	—	—	—																
Montague.....	44 50	76 57	—	48.9	—	4	79.0	6-10	23.0	31	18.3	4.32	+1.99	1.23	12	19	—	—	—																
Morrisburg.....	45 0	76 57	—	50.4	—	1	80.6	7	23.0	22	19.0	6.14	—	1.50	11	20	—	—	—																
North Gower.....	45 8	76 43	—	50.1	—	11	80.0	8-10	12.0	31	23.3	2.40	—	1.07	6	25	—	—	—																
Ottawa.....	45 26	75 42	294	50.0	+3.4	28	76.0	9-10	23.0	31	15.5	4.94	+2.69	1.42	14	17	—	—	—																
Renfrew.....	45 26	76 39	416	49.1	+3.2	24	80.1	7	22.0	31	17.8	2.48	+0.45	0.86	13	18	—	—	—																
Georgian Bay Counties																																			
Barrie.....	44 23	79 41	839	49.8	+3.4	38	76.0	7-10	15.0	31	16.9	4.71	-1.30	1.37	8	23	—	—	—																
Buxton.....	45 8	79 20	803	46.8	+1.9	23	80.0	10	20.0	31	21.7	3.56	—	0.95	9	22	—	—	—																
Big Chute (Buskin P.O.).....	44 35	79 20	655	50.8	—	1	82.0	10	20.0	31	21.7	3.56	—	0.95	9	22	—	—	—																
Coldwater.....	44 38	79 40	600	48.5	+3.1	24	83.0	7	16.0	31	23.4	2.27	-0.82	0.64	8	23	—	—	—																
Collingwood.....	44 31	80 2	—	47.6	+2.3	43	78.0	7-10	21.0	31	18.9	5.51	+0.50	1.23	10	21	—	—	—																
Gravenhurst.....	44 04	79 20	692	47.9	—	7	80.0	7-10	15.0	31	21.0	—	—	1.60	10	21	—	—	—																
Huntsville.....	45 19	79 8	—	49.2	—	2	81.0	8	20.0	31	16.5	4.51	—	1.35	7	24	—	—	—																
*Midland.....	44 44	79 53	750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
Markdale.....	44 37	79 24	775	49.0	+2.4	19	77.0	10	18.0	31	16.7	3.09	-0.20	1.07	6	25	—	—	—																
Neaford.....	44 34	80 56	697	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
Orrville.....	45 19	80 0	635	48.0	+2.2	37	78.0	7-10	17.0	31	16.0	4.31	+1.61	1.09	11	20	—	—	—																
Owen Sound.....	45 15	78 57	1038	47.8	—	6	79.0	11	18.0	30	20.5	3.44	—	0.90	12	19	—	—	—																
Lake Huron Counties																																			
Birmingham.....	43 2	81 65	600	51.4	+2.9	21	77.0	10	28.5	31	13.2	3.79	+0.90	0.95	10	21	—	—	—																
Clinton.....	43 32	81 37	—	49.8	+3.3	11	79.0	11	21.0	31	16.7	5.89	+2.23	1.49	14	17	—	—	—																
Godolphin.....	43 45	81 41	—	50.6	+1.9	23	80.0	8-11	27.0	31	13.9	4.98	+2.56	1.26	15	16	—	—	—																
Lacknow.....	43 56	81 30	908	47.6	+0.2	27	79.2	7-9	18.9	31	16.9	6.22	+2.23	1.28	17	14	—	—	—																
*North Bruce.....	44 23	81 25	—	49.3	+1.7	25	81.0	10	25.0	31	—	4.22	+1.29	0.97	14	17	—	—	—																
Southampton.....	44 30	81 21	668	49.6	+1.6	37	80.2	7	25.4	31	13.9	4.65	+1.78	1.31	17	14	—	—	—																
Lakes St. Clair & Erie, Niagara Peninsula																																			
Chatham.....	42 23	82 12	695	53.4	+2.5	28	87.0	6	23.0	31	16.8	3.85	+1.31	0.90	11	21	—	—	—																
Cottam.....	42 7	82 45	608	49.8	-1.8	26	82.0	6	21.0	31	22.0	3.63	+0.91	1.49	10	21	—	—	—																
Dutton.....	43 13	79 36	—	50.7	—	1	80.0	6	25.0	31	19.1	2.65	—	0.65	6	25	—	—	—																
Grimsby.....	43 13	79 36	—	52.4	—	4	81.0	7	28.0	30	16.4	6.84	—	1.05	10	21	—	—	—																
Pelen Island.....	41 50	82 35	685	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																
Port Burwell.....	42 30	80 55	692	50.7	+1.5	19	74.0	10	26.0	31	14.4	2.40	-0.65	0.85	9	22	—	—	—																
Port Dover.....	42 27	80 13	635	50.0	+1.6	37	80.5	6	26.0	31	17.0	3.13	+0.65	0.70	18	13	—	—	—																
Port Stanley.....	42 40	81 13	592	49.9	+1.1	37	71.7	6	26.5	31	15.2	3.58	+0.81	0.66	16	15	—	—	—																
St. Catharines.....	43 8	79 17	347	51.6	+1.6	29	78.0	6-10	22.0	31	16.3	2.64	+0.24	0.71	8	23	—	—	—																
Stoney Creek.....	43 13	79 45	292	54.5	—	8	83.0	9	27.0	30	24.0	6.20	—	1.54	6	25	—	—	—																
Wallaceburg.....	42 35	82 24	677	54.5	—	8	83.0	9	27.0	30	24.0	6.20	—	1.54	6	25	—	—	—																
Welland.....	42 40	81 13	592	49.9	+1.1	37	71.7	6	26.5	31	15.2	3.58	+0.81	0.66	16	15	—	—	—																
Windsor.....	42 20	83 4	625	49.1	+2.2	26	71.7	6	26.5	31	15.9	3.23	+0.92	1.13	11	20	—	—	—																

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCT., 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level in feet.	TEMPERATURE							PRECIPITATION							
				Mean.	Difference from average.	Yr's Observations	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of autumns.	No. of thunderstorms.
ONTARIO—Continued—																		
West-Central Counties																		
Alton.....	43 51	80 5	1259	45.6	+ 1.1	27	81.0	7	17.0	31	23.8	3.07	+0.28	0.90	8	21	..	5
Brantford.....	43 10	80 21	750	50.5	+ 2.9	32	34.0	6	26.0	30	19.9	2.62	+0.12	0.87	6	25	..	1
Elora.....	43 41	80 24	1274	48.3	+4.3	16	85.0	6	21.0	31	21.0	1.83	-0.98	0.46	10	21	..	1
Guelph.....	43 33	80 10	1050	49.6	+2.6	27	81.0	7	23.0	31	18.1	2.64	-0.57	0.84	16	15	..	1
Listowel.....	42 59	81 13	868	48.0	+2.3	11	77.0	10	22.0	30	17.4	4.93	+1.08	1.14	9	22	..	1
London.....	42 39	81 13	505	49.7	+4.2	26	83.0	6	26.0	31	12.7	3.70	+0.75	0.66	12	19	..	1
Paris.....	43 12	80 25	840	50.5	+ 1.8	23	82.0	6	27.0	31	18.8	2.88	-0.12	0.58	16	15	..	1
Shelburne.....	43 23	81 0	1191	50.2	+ 2.9	48	80.0	7	23.0	31	17.9	3.46	-0.05	0.76	11	20	..	1
Stratford.....	43 8	80 47	980	48.7	+ 1.6	39	78.0	10	25.0	31	18.3	2.81	-0.07	0.59	14	17	..	1
Lake Ontario Counties																		
Agin Court.....	43 47	79 16	590	51.2	+ 1.6	17	83.0	8	24.0	31	17.9	2.28	-2.02	0.85	8	23	..	1
Aurora.....	43 16	79 24	886	48.1	—	6	79.0	8	26.0	13	17.4	2.80	-0.11	0.81	8	23	..	2
Hamilton.....	43 16	79 54	303	51.6	+ 3.3	72	81.4	6	26.9	31	16.1	2.46	-0.24	0.98	14	17	..	2
Oshawa.....	44 20	78 52	331	52.8	—	8	78.0	7	28.0	31	16.8	2.77	—	0.98	11	20	..	1
Toronto.....	43 40	79 24	350	49.0	—	2	79.0	6	30.0	14-22	15.8	2.17	—	0.85	7	24	..	1
Toronto Is. (Lakeside Home)	44 5	79 8	886	49.0	—	2	79.0	6	30.0	14-22	15.8	2.17	—	0.85	7	24	..	1
Uxbridge.....	44 5	79 8	886	49.0	—	2	79.0	6	30.0	14-22	15.8	2.17	—	0.85	7	24	..	1
Wexford.....	44 44	79 17	555	49.0	—	2	79.0	6	30.0	14-22	15.8	2.17	—	0.85	7	24	..	1
East-Central Counties																		
Bancroft.....	45 1	77 50	468	+ 3.5	22	82.0	6	16.0	30	21.8	2.42	-0.19	0.70	10	23	..	1	
Haliburton.....	45 1	78 28	1050	47.6	+ 3.1	25	80.0	7-10	10.0	36	23.0	2.42	-0.21	0.60	8	23	..	1
Kinnmount.....	44 45	78 38	920	46.1	+ 1.6	14	77.0	6-10	17.0	30	21.4	2.56	+0.49	0.70	12	19	..	1
Lakefield.....	44 25	78 15	850	50.1	+ 3.6	30	76.0	7	22.0	31	17.6	2.56	+0.49	0.70	12	19	..	1
Lindsay.....	44 20	78 45	872	49.4	+ 4.7	34	81.1	6-7	21.4	31	20.1	2.02	-0.41	0.76	10	21	..	3
Madoc.....	44 30	77 29	975	50.1	—	2	79.0	6	21.0	31	17.5	2.53	—	0.93	10	21	..	3
Norwood.....	44 17	78 19	722	50.0	+ 4.0	43	85.0	8-7	21.0	31	22.4	1.93	-0.98	0.98	8	23	..	2
Peterboro'.....	44 17	78 19	722	50.0	+ 4.0	43	85.0	8-7	21.0	31	22.4	1.93	-0.98	0.98	8	23	..	2
Ures.....	44 34	78 18	980	48.7	+ 1.6	39	78.0	10	25.0	31	18.3	2.81	-0.07	0.59	14	17	..	1
QUEBEC—																		
Middle St. Lawrence																		
Beauceville.....	46 11	70 48	557	48.4	—	1	78.5	8	22.0	31	20.0	3.32	—	0.81	14	17	..	1
Brome.....	45 10	72 36	678	49.0	+ 5.2	33	77.0	10	26.0	31	16.0	4.85	+2.34	1.02	15	16	..	1
Cap Rouge.....	46 46	71 18	490	49.0	—	3	73.0	8-10	24.2	31	14.0	4.11	—	0.81	16	15	..	1
Cedar Rapids.....	45 65	71 21	132	51.0	—	1	77.0	13	24.0	31	14.5	3.69	—	0.86	11	20	..	1
D'Iserni.....	45 65	71 21	896	50.9	+ 4.8	39	73.8	9	25.4	31	12.1	6.45	+2.44	2.56	15	16	..	1
Montreal.....	45 30	73 35	187	48.8	+ 5.8	39	72.8	9	23.6	31	12.7	3.74	+0.65	1.15	17	14	..	1
Quebec.....	46 48	71 13	296	51.4	+ 4.8	7	79.4	11	24.0	31	15.6	4.63	—	1.19	13	18	..	1
Ste. Anne de Bellevue	45 27	73 09	498	49.8	—	2	80.0	10	25.0	31	17.0	5.67	—	0.91	14	17	..	2
Shawabridge.....	46 34	72 43	433	44.9	+ 2.6	12	73.0	5-12	17.0	31	17.0	5.07	+2.28	0.91	14	17	..	2
Shawinigan Falls	45 32	72 6	630	50.1	+ 5.2	11	76.8	9	24.3	31	16.1	3.75	+1.27	1.29	16	15	..	6
Sherbrooke.....	45 32	72 6	630	50.1	+ 5.2	11	76.8	9	24.3	31	16.1	3.75	+1.27	1.29	16	15	..	6
Lower St. Lawrence & Gulf																		
*Anticosti E. Pt.	49 6	61 42	30	48.2	+ 3.2	32	67.0	20	18.0	31	14.1	7.53	+4.28	1.38	14	17	..	9
*Anticosti, S.W. Pt.	49 52	64 32	30	45.0	+ 5.2	32	58.0	10	28.0	31	—	5.15	+3.28	1.60	19	12	..	13
*Biequet.....	48 25	68 53	63	45.9	+ 6.4	32	84.0	7	30.0	31	—	4.60	+2.10	0.90	19	19	..	13
*Cape Chatte.....	49 6	66 45	93	45.3	+ 4.6	31	65.0	21	29.0	31	13.6	4.05	+1.37	0.98	17	14	..	11
*Cape Magdalen.....	49 10	65 20	93	44.8	+ 4.8	36	70.0	11	26.0	31	14.2	4.86	+1.81	0.90	17	12	..	9
Father Point.....	47 22	70 2	65	46.2	—	3	75.2	8	24.4	31	14.2	3.42	—	1.10	17	14	..	1
Ste Anne de la Poesiere	47 22	70 2	65	46.2	—	3	75.2	8	24.4	31	14.2	3.42	—	1.10	17	14	..	1
Lake St. John																		
Chicoutimi.....	48 25	71 6	150	47.0	+ 6.4	35	74.5	8	24.4	31	14.0	3.13	+0.78	0.76	16	18	..	1
Chicoutimi (2).....	47 39	72 15	1333	47.9	—	3	69.0	12	29.0	26	7.6	3.22	—	1.00	11	20	..	1
Lake Edward.....	47 27	72 48	520	48.5	—	2	81.0	8	21.0	31	17.9	3.05	—	0.96	13	18	..	3
La Tuque.....	48 34	72 15	386	41.4	—	2	74.0	8	22.0	31	16.6	3.05	—	0.96	13	18	..	3
Mistassini.....	48 34	72 15	386	41.4	—	2	74.0	8	22.0	31	16.6	3.05	—	0.96	13	18	..	3
The Northwestern Districts																		
Abitibi.....	48 33	79 22	419	+ 1.5	18	69.0	1-7	16.0	30	11.4	2.39	+0.88	0.85	11	20	..	2	
Amos.....	48 4	66 22	39	40.1	+ 8.0	38	70.0	7-9	29.0	31	9.0	2.73	+0.70	0.85	7	24	..	2
Manouan Crossing.....	47 54	73 50	41.3	—	1	73.0	7	25.0	22	12.9	5.10	—	1.02	14	17	..	4	
Temiskaming.....	47 54	73 50	41.3	—	1	73.0	7	25.0	22	12.9	5.10	—	1.02	14	17	..	4	
Weymontachique (Dam A)	48 12	76 43	41.7	—	2	77.5	7	13.5	22	16.8	3.75	—	1.36	12	19	..	5	
White Shore Lake.....	48 12	76 43	41.7	—	2	77.5	7	13.5	22	16.8	3.75	—	1.36	12	19	..	5	
The North Shore																		
Clarks City.....	50 10	68 25	43.6	—	7	67.0	5-10	15.0	31	12.9	7.10	—	1.41	16	15	..	10	
New Brunswick—																		
Chatham.....	47 3	65 29	21	32.6	+ 7.3	39	75.5	7	30.0	31	12.7	9.22	+8.53	1.50	20	11	..	1
Dalhousie.....	48 4	66 22	39	40.1	+ 8.0	38	70.0	7-9	29.0	31	9.0	2.73	+0.70	0.85	7	24	..	1
Fredericton.....	45 57	66 36	164	32.8	+ 8.2	39	75.8	7	26.0	22	12.9	7.42	+2.02	1.09	18	13	..	3
Fredericton (Ex-Farm).....	45 57	66 36	164	32.8	+ 8.2	39	75.8	7	26.0	22	12.9	7.42	+2.02	1.09	18	13	..	3
Grand Falls.....	46 9	64 45	50	52.8	+ 7.7	16	73.0	19-22	23.0	31	13.9	5.75	+5.48	1.50	12	19	..	4
Moncton.....	46 9	64 45	50	52.8	+ 7.7	16	73.0	19-22	23.0	31	13.9	5.75	+5.48	1.50	12	19	..	4
*Point Lepreau.....	45 4	66 28	39	40.1	+ 8.0	38	70.0	7-9	27.0	31	9.0	2.73	+0.70	0.85	7	24	..	1
St. John.....	45 17	65 4	70	54.9	+ 7.5	40	69.3	3	30.2	31	9.4	5.95	+1.80	1.65	19	12	..	8
St. Stephen.....	45 11	67 16	35	53.0	+ 6.0	16	74.5	9	26.0	31	13.7	5.29	+0.89	0.91	16	15	..	1
Summit.....	45 38	65 38	98	55.1	+ 9.4	16	71.0	7	26.0	23	12.2	6.22	+2.25	2.98	6	25	..	1
Williamsburg.....	45 38	65 38	98	55.1	+ 9.4	16	71.0	7	26.0	23	12.2	6.22	+2.25	2.98	6	25	..	1

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCT., 1915.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION			Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of logs
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average					
NOVA SCOTIA—																		
Advocate.....	..	..	..	55.6	—	1	73.0	3	28.0	1	13.7	2.31	—	0.75	11	20	1	..
Antigonish.....	45 38	61 59	50	54.6	—	3	73.0	22	22.0	3	16.1	—	—	—	..	..	..	..
Halifax.....	44 39	63 36	88	57.8	+ 9.0	39	73.9	9	30.2	1	12.2	10.49	+4.92	1.74	20	11	..	6
Kentville.....	45 3	..	40	53.8	—	2	69.0	3	28.0	1	12.7	9.66	—	1.94	16	13	..	..
Kentville (2).....	..	..	..	56.1	—	1	74.0	3	31.0	1	11.4	9.60	—	1.98	22	9	..	..
Liverpool.....	44 0	64 40	56	55.8	—	1	74.0	10	26.0	1	14.8	11.43	—	2.31	12	19	2	..
Nappan.....	..	..	..	55.9	—	1	72.0	9	28.0	1	12.1	7.83	—	1.70	13	18	..	..
New Germany.....	..	..	..	66.7	—	2	75.0	7.9	26.0	1	15.4	8.63	—	2.06	11	20	..	..
Parrsboro'.....	45 23	64 19	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Port Hastings.....	45 30	61 22	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sable Island, E. Pt.....	43 58	59 46	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sable Island (Main Station).....	43 57	60 6	25	58.7	+ 6.4	31	69.0	22	41.0	31	8.2	7.64	+3.03	3.03	11	20	1	7
Sydney.....	46 10	60 10	35	66.3	+ 8.8	40	70.0	7	32.0	24	13.0	2.96	+2.02	0.66	14	17	..	2
Truro.....	45 22	63 18	77	57.0	+10.8	39	73.8	18	27.2	1	14.1	9.40	+4.82	2.90	17	14	1	2
Truro (2).....	45 26	63 15	..	66.9	—	1	73.0	6-18	27.6	1	12.7	9.22	—	2.04	14	17	..	4
Whitehead.....	45 15	61 8	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Windsor.....	44 59	64 6	90	57.9	+10.8	11	73.0	19	30.0	1	11.5	10.08	+6.77	2.27	18	13	1	..
Wolfville.....	45 7	64 20	..	55.8	+ 8.1	14	72.6	3	31.5	23	12.3	11.44	+9.48	2.85	18	13	..	..
Yarmouth.....	43 50	66 2	68	57.4	+ 9.1	35	74.0	4	23.9	1	12.2	5.64	+0.97	0.99	19	12	1	7
P. E. ISLAND—																		
Charlottetown.....	46 14	63 10	38	55.4	+ 8.3	38	68.0	9	33.0	31	10.4	7.49	+2.85	1.93	16	13	..	2
Charlottetown (Exp. Farm).....	46 14	63 7	75	55.1	—	4	70.0	7	33.0	1-31	12.3	7.71	—	1.85	17	14	..	..
Hamilton.....	46 28	63 48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Summerside.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
NEWFOUNDLAND—																		
Amour Point.....	51 28	58 51	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burin.....	47 0	55 10	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cape Norman.....	51 38	65 52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fogo.....	49 43	54 17	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Point Riche.....	50 42	57 25	35	47.9	+ 0.2	29	65.0	21	27.0	31	—	—	—	—	..	..	4	..
Port aux Basques.....	47 35	59 10	27	50.1	— 5	71.0	5	30.5	31	8.4	5.56	—	—	1.79	16	15	..	3
St. George's.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. John's.....	47 34	52 42	125	48.1	+ 2.7	41	74.0	5	30.0	2	12.8	3.14	—3.10	1.15	10	15	..	7
BERMUDA—																		
Prospect.....	32 17	64 46	151	73.6	+ 0.1	22	82.0	6	63.8	3	10.7	4.22	—2.69	1.04	22	0	2	..

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING OCT., 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Dnys. 01 or over.	No. of Fair Dnys.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Dnys.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Alkali Lake										
Annis (Canon Point).....	2 19	13	15	0 57	11					
Beaver Lake.....	3 15	9	22	0 79	10					
Cogitiam.....	7 05	10	21	1 55	10					
Cariboo Road No 141.....										
Donnan's Island.....	4 52	11	20	1 55	12					
Ferguson.....	3 10	10	18	0 34	13	12.0	3	10.0	11	
Goldstream Lake.....	5 02	13	18	1 23	11					
Hydraulic.....										
Hornby Island.....	4 68	8	23	1 58	12					
Invermere.....	0 61	4	27	0 40	9					
Jordan River.....	9 24	19	12	3 39	10					
Jordna River (Bear Creek).....	9 53	15	16	2 29	12					
Little Qualicum (Fr. Cr. V.I.).....	3 60	8	23	0 95	12					
Lumby.....	1 77	9	21	1 04	11	0 5	1	0 5	13	
Nana Harbour.....										
Rock Creek.....	1 14	8	23	0 70	10					
Shawnigan Lake.....										
Sooke Lake.....	4 85	12	19	1 14	11					
Wycliffe.....										
ALBERTA—										
Bardo.....	0 10	1	28	0 10	2	2 5	2	1 5	13	
Blamark.....	0 21	1	29	0 21	3	1 2	1	1 2	13	
Bruderheim.....										
Bittern Lake.....	0 24	1	23	0 24	2	1 8	2	1 5	14	
Brooks.....	0 18	5	24	0 05	26	1 6	2	1 5	13	
Beaver Mines.....	—	—	—	—	—	30.4	5	12.0	4	
Coleman.....	1 30	4	24	0 45	13	12.3	3	6.0	4	
Cowley.....	0 41	4	21	0 26	4	9 5	6	4.0	4	
Caldwell.....	—	—	—	—	—	15.5	5	7.0	4	
Clareholm.....	0 36	1	27	0 36	3	2 1	3	1 2	4	
Clonarda.....	—	—	—	—	—	9.0	2	6.0	6	
Dunelm (Bashaw).....										
Dunstable (Five Lakes).....	0 09	3	25	0 05	19	4 1	3	2 3	13	
Grassy Lake.....	—	—	—	—	—	1 0	2	0 5	4-5	
Jumping Pound.....	0 83	6	25	0 27	13	Not Measured				
Loch Sloy.....										
Lydon.....	—	—	—	—	—	12.0	2	8.5	5	
Linham.....	—	—	—	—	—	4.5	3	2.3	28	
La Pearl.....										
Lethbridge.....	0 10	1	26	0 10	8	3 9	4	2 2	4	
Macleod.....	—	—	—	—	—	6.0	2	5.0	4	
Maycroft.....	0 19	1	23	0 19	13	5 7	7	2 2	4	
Mountain View.....	0 62	1	25	0 62	13	11.0	5	6.0	5	
Manville (Roycroft Ranch).....	—	—	—	—	—	1 0	1	1 0	14	
Nateby.....	—	—	—	—	—					
Nanton.....	—	—	—	—	—	13.0	2	7.0	27	
Okotoks.....	—	—	—	—	—					
Pekisko.....	—	—	—	—	—	23.0	5	12.5	4	
Ponoka.....	—	—	—	—	—					
Seven Persons.....	0 40	1	29	0 40	3	0 8	1	0 8	27	
Tilley.....	—	—	—	—	—					
Waterton Mills.....	0 44	3	23	0 22	2	35.8	5	25.8	5	
SASKATCHEWAN—										
Gull Lake.....	0 15	1	28	0 15	24	5 0	2	4 0	5	
Gull Lake (Eks. Swift Cur.).....	0 40	2	28	0 21	3	0 5	1	0 5	29	
The Meadows (Battle Ck.).....										
Willow Creek (Maple Cr.).....										
Wapashon.....										
MANITOBA—										
Cartwright.....	0 92	6	25	0 65	9					
Delorsine.....										
Norquay (Swan Lake).....										
Rapid City.....	0 50	3	27	0 44	10	0 3	1	0 3	21	
Rose Bank.....										
ONTARIO—										
Brantford (Bow Park Farm).....	2 54	16	15	0 60	24					
Deer Park.....	2 03	9	22	0 33	23					
Dutton.....	2 05	6	25	0 65	3					
Emsdale.....	4 32	13	18	0 77	12					
Fort Frances.....										
Georgetown.....	3 01	12	18	0 70	24	*	1	*	21	
Grantham.....	3 35	13	17	0 78	25	*	2	*	22-31	
Grand Valley.....										
Hillier.....										
MecCon.....	2 26	8	23	0 57	2					
Niagara Falls.....	3 65	9	21	0 90	24	1 5	1	1 5	30	
Nipigon.....	5 52	12	17	1 90	5	3 3	2	3 0	19	
Princeton.....										
Point Clark.....	3 65	6	25	0 95	17					
Renfrew.....										
Sydenham.....	2 75	3	28	1 35	20					
Stretthroy.....	2 75	7	24	0 56	22					
Watford.....	4 04	9	22	1 28	23					
Westport.....	2 72	7	24	0 80	20					
Westminster.....	3 52	3	28	2 83	25					
Wooler.....										
Wesley.....										
Winton.....	2 83	5	25	1 14	23	*	1	*	30	

[illegible]



## PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE

MONTH OF OCT., 1913.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.			Mean relative humidity.	Mean amount of cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND.					
				Mean reduced.	Highest.	Lowest.				Range.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean miles per hour.	Maximum velocity.	Date and direction from.		
BRITISH COLUMBIA—																									
Atlin	59	35	133	38	2240	29.92	30.52	29.24	1.18	—	8	18	12	7	4	8	18	2	0	5	6	62	9.9	.....	
Barkerville	53	52	121	35	4180	30.03	30.57	29.48	1.09	71	2	12	6	0	13	0	10	2	1	18	1	13	62	.....	
Kamloops	50	42	120	29	1245	30.03	30.63	29.36	1.27	—	7	12	1	2	1	12	1	2	8	12	23	62	.....		
α Nanaimo	49	10	123	37	125	30.00	30.50	29.43	1.07	85	7	20	1	1	12	6	8	2	5	0	27	62	.....		
Prince Rupert	54	18	130	18	170	29.97	30.56	29.38	1.18	—	6	13	6	0	0	2	1	4	0	0	55	62	.....		
Triangle Island	50	52	129	5	680	29.97	30.56	29.38	1.18	85	7	20	1	1	12	6	8	2	5	0	27	62	.....		
α Tranquille	30	41	120	29	—	28.8	29.90	28.11	1.69	82	6	9	3	8	0	0	—	—	3	38	62	.....			
Vancouver	49	17	123	5	136	30.05	30.61	29.56	1.05	86	6	10	1	0	20	5	8	5	12	5	11	62	.....		
Victoria	48	24	123	19	85	30.11	30.60	29.55	1.05	85	6	11	15	3	7	2	12	3	10	1	9	62	6.0	33 13W	
YUKON—																									
Dawson	64	4	139	20	1200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
ALBERTA—																									
Banff	51	10	115	34	4542	30.03	30.62	29.30	1.32	72	6	4	0	5	0	2	0	31	0	0	24	62	.....		
Calgary	51	2	114	30	4040	29.98	30.55	29.33	1.22	73	6	5	4	6	5	1	4	4	2	3	26	11	62	10.2	23 22NW
Edmonton	53	33	113	30	2158	29.97	30.47	29.37	1.10	73	5	8	1	7	2	8	7	6	13	13	5	62	5.1	18 4.13, 23NW	
Medicine Hat	50	1	110	37	2161	29.97	30.49	29.41	1.08	76	6	9	8	0	3	0	3	5	21	6	16	62	.....		
SASKATCHEWAN—																									
Battleford	52	41	108	20	1620	30.00	30.58	29.18	1.40	93	5	7	1	5	2	11	1	4	9	11	18	62	8.3	48 13NW	
Moose Jaw	50	21	105	35	1759	30.01	30.57	29.22	1.15	86	6	7	7	4	6	0	1	18	11	6	40	93	.....		
Prince Albert	53	10	106	0	1852	29.99	30.54	29.41	1.30	91	6	14	7	3	4	0	2	7	13	12	16	62	5.6	23 14NW	
Qu'Appelle	50	20	103	47	2115	29.96	30.47	29.38	1.09	81	6	8	7	6	6	1	4	6	14	13	10	62	10.0	31 14NW	
Swift Current	50	20	107	45	2439	29.99	30.60	29.36	1.24	80	6	8	3	8	1	2	4	14	11	9	10	62	10.6	.....	
MANITOBA—																									
α Aweme (St. Alban's)	49	42	99	33	1180	30.02	30.48	29.44	1.04	87	5	8	5	6	3	1	2	4	6	12	23	62	.....		
Minnedosa	50	15	89	60	1699	30.02	30.48	29.44	1.04	87	5	8	5	6	3	1	2	4	6	12	23	62	.....		
Le Pas	53	49	101	15	865	29.99	30.52	29.41	1.11	97	7	11	10	7	2	11	10	11	14	24	4	93	10.4	42 14 27NW	
Winnipeg	49	53	97	7	760	30.01	30.49	29.30	1.19	88	6	10	10	7	2	11	10	11	14	24	4	93	11.6	38 27NW	
ONTARIO—																									
Cochrane	49	2	81	0	946	30.04	30.52	29.46	1.06	—	6	11	8	0	4	5	15	6	15	7	2	62	8.4	29 21NW	
Guelph	43	33	80	16	950	—	—	—	—	85	8	21	8	6	0	4	13	5	9	7	10	62	8.1	.....	
Halesbury	47	27	29	39	987	30.03	30.51	29.20	1.21	80	7	13	11	14	4	10	2	5	8	8	0	62	9.4	.....	
Kingston	44	13	76	29	285	29.99	30.40	29.02	1.28	81	6	11	0	27	3	15	3	23	3	19	0	93	.....		
London	42	59	81	3	808	29.99	30.47	29.14	1.33	81	6	11	0	27	3	15	3	23	3	19	0	93	.....		
α Lindsay	44	20	78	45	872	29.96	30.43	28.23	1.21	—	6	11	8	11	13	0	9	16	8	1	10	19	93	.....	
Ottawa	45	26	45	42	294	29.99	30.36	28.99	1.37	95	6	11	8	6	14	2	2	2	12	11	15	62	.....		
Port Arthur	42	40	81	13	592	30.00	30.51	29.16	1.25	88	7	14	0	5	8	4	0	3	19	9	14	62	.....		
Perry Sound	48	27	82	12	644	29.99	30.47	29.42	1.05	79	6	8	5	11	7	1	6	2	13	9	27	18	93	3.0	7NE
Port Stanley	42	40	81	13	592	30.00	30.51	29.16	1.25	88	7	14	0	5	8	4	0	3	19	9	14	62	.....		
Southampton	44	30	81	21	656	29.98	30.39	29.18	1.21	85	7	13	9	4	11	8	6	1	6	7	10	62	.....		
Stoney Creek	46	9	78	6	557	30.00	30.29	29.02	1.27	—	6	4	1	1	11	3	0	1	22	0	23	62	4.4	14 21W	
Truro	43	40	79	24	350	30.00	30.45	29.11	1.34	80	5	10	13	7	8	3	1	5	11	13	1	62	10.7	35 21W	
White River	48	33	35	16	1222	29.96	30.42	29.47	0.95	87	7	19	9	5	4	2	10	4	12	4	12	62	5.8	18 12SW	
Woodstock	43	8	50	47	980	29.98	30.43	29.14	1.29	82	6	13	6	8	6	14	12	10	10	26	1	93	7.8	30 28SW	
QUEBEC—																									
Anticosti N.W. Pt.	49	24	63	35	30	30.02	30.62	29.31	1.31	90	8	16	14	16	9	18	14	3	4	11	4	93	.....		
Father Point	48	31	68	19	30	30.00	30.52	29.08	1.44	87	8	16	4	3	19	6	5	3	19	4	5	62	13.1	45 21W	
Montreal	45	30	7	3	187	29.98	30.40	28.70	1.64	69	7	12	7	6	8	21	6	12	5	1	93	12.9	32 26NE		
Quebec	46	48	71	13	293	29.99	30.45	29.11	1.34	83	8	17	2	47	2	3	3	17	9	7	3	93	15.1	53 20NE	
Sherbrooke	45	32	72	5	620	29.99	30.47	29.04	1.36	77	7	7	5	2	7	9	16	10	23	21	0	93	.....		
NEW BRUNSWICK—																									
Chatham	47	3	05	29	21	30.04	30.64	29.40	1.24	86	8	16	3	13	14	0	0	20	8	4	0	62	.....		
Fredericton	45	67	66	36	164	30.02	30.63	29.41	1.22	89	8	21	14	11	12	2	15	7	12	16	4	93	6.3	26 21SW	
St. John	45	17	66	4	70	29.99	30.58	29.40	1.18	87	8	19	18	18	8	13	18	6	12	5	5	93	11.7	38 21SW	
NOVA SCOTIA—																									
Halifax	44	29	63	36	88	29.99	30.57	29.42	1.15	94	9	22	2	3	5	14	15	7	12	4	0	62	11.1	39 15NE	
Sable Island (MStation)	43	6	54	17	35	30.07	30.63	29.28	1.37	83	8	20	6	7	6	19	7	16	12	11	9	93	13.6	42 18SE	
Sydney	46	10	60	10	25	30.01	30.61	29.48	1.13	—	8	14	2	12	17	12	19	7	5	4	4	93	.....		
Truro	45	25	63	15	—	30.01	30.63	29.58	1.03	—	8	12	0	4	6	19	8	4	4	4	6	55	.....		
Truro (2)	45	25	63	15	—	30.01	30.63	29.58	1.03	—	8	12	0	4	6	19	8	4	4	4	6	55	.....		
Wolfville	43	50	68	2	65	29.98	30.56	29.41	1.12	92	7	17	8	2	14	5	12	7	4	3	7	62	10.3	42 21SW	
Yarmouth	43	50	68	2	65	29.98	30.56	29.41	1.12	92	7	17	8	2	14	5	12	7	4	3	7	62	.....		
P. E. ISLAND																									
Charlottetown	46	14	63	10	38	30.02	30.60	29.50	1.10	88	8	21	1	10	5	9	6	8	3	6	14	62	7.7	30 21S	
NEWFOUNDLAND																									
Burin	47	0	55	10	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fogo	49	42	54	17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Port aux Basques	47	35	50	10	27	30.07	30.62	29.32	1.30	—	8	20	9	0	30	2	7	1	6	1	6	62	.....		
St. George's	48	27	58	31	21	30.08	30.57	28.98	1.59	70	7	14	22	7	5	5	14	7	4	8	1	62	.....		
St. John's	47	34	52	42	125	30.08	30.57	28.98	1.59	70	7	14	22	7	5	5	14	7	4	8	1	62	.....		
BERMUDA																									
St. Peter's	32	17	64	48	151	30.06	30.26	29.65	0.61	82	6	1	11	6	10	15	13	15	7	15	1	93	.....		

STATION	DIRECTION OF WIND FROM									Total number of observations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	3	0	4	2	6	3	8	5	0	31
Didsbury.....	0	0	0	3	2	8	4	12	0	29
Edmonton.....	5	2	1	11	13	0	1	0	0	33
Halifax (Edmonton).....	3	1	2	15	14	6	8	13	0	62
Hillsdown.....	5	1	0	5	8	5	0	24	14	62
Loveland.....	1	1	2	10	4	15	8	21	0	62
Macleod.....	10	0	1	0	5	0	38	0	9	62
Paken (Victoria).....										
Ranfurly (Wentfield).....	1	5	16	19	6	5	16	20	5	93
SASKATCHEWAN—										
Chaplin.....	2	4	0	5	5	1	4	9	1	31
Crescent Lake.....	2	6	2	5	4	9	17	14	3	62
Estevan.....	0	2	1	6	1	6	9	6	0	31
Fort Qu'Appelle.....	0	6	7	2	2	11	14	14	6	62
Grenfell (Brownhill).....	0	10	5	9	2	10	3	23	0	62
Indian Head.....	7	9	0	1	8	16	19	29	4	93
Larchmount (Glenbrian).....										
Moosomin.....										
Muenster (St. Peter's Monastery).....	4	8	0	10	9	8	8	15	0	62
Onion Lake.....	4	3	4	2	1	1	5	11	0	31
Pense (Gatesgarth).....	2	2	0	9	0	6	1	11	0	31
Waseca.....	0	2	4	5	1	2	14	3	0	31
MANITOBA—										
Berens River.....										
Brandon.....	1	9	2	6	3	18	10	14	18	81
Hillview.....	1	9	6	7	4	11	14	40	0	93
Moose Horn Bay (Aitkensville).....	14	9	1	5	7	6	7	7	6	62
Morden.....	11	6	4	3	5	8	9	12	4	62
Oak Bank.....	8	0	1	2	3	4	3	8	2	31
Stony Mountain.....	2	7	2	5	9	4	13	18	0	60
ONTARIO—										
Agincourt.....	4	11	22	12	12	18	10	13	1	93
Alton.....										
Beatrice.....	5	0	2	6	14	2	1	10	53	93
Biram.....	6	2	4	6	8	6	6	17	7	62
Clinton.....	7	6	4	7	13	3	8	14	0	62
Cottam.....	10	0	3	4	27	2	13	3	0	62
Gravenhurst.....	9	7	10	11	19	4	7	10	16	93
North Bruce.....	9	4	10	6	26	13	12	13	0	93
Orillia.....	6	1	1	1	12	5	4	1	0	31
Owen Sound.....										
Point Clark.....										
Port Dover.....	10	8	13	4	7	4	4	10	2	62
Stoney Creek.....	1	14	18	3	1	10	30	16	0	93
Uplands.....										
Wexford.....	1	3	5	3	0	2	2	7	8	31
QUEBEC—										
Abitibi.....	23	4	5	2	27	3	19	10	0	93
Anticosti, W. Pt.....	11	5	17	19	17	2	10	12	0	93
Anticosti, Heath Point.....										
Bicquet.....	5	35	0	0	7	6		1	32	93
Brome.....	27	5	3	0	23	1	31	1	2	93
Cape Chatte.....										
Cape Magdalen.....	6	1	6	13	16	8	2	26	14	93
Cap Rouge.....	4	14	0	0	0	1	0	12	0	31
Chicoutimi.....	0	22	5	1	1	2	15	5	42	93
Clarke City.....	3	14	15	4	1	6	1	13	0	57
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	2	11	1	0	0	13	2	2	31
Moncton.....	0	6	5	3	0	2	1	6	8	31
Pt. Lepreaux.....	9	13	11	11	13	5	14	5	0	81
Sussex.....	1	11	1	0	2	3	0	2	11	31
NOVA SCOTIA—										
Kentville.....	1	3	7	6	10	0	2	2	0	31
Parssboro.....										
Port Hastings.....										
Sable Island, E. Pt.....										
Truro.....										
Whitehead.....										



MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
OCTOBER 1913.

STATION.	Hours Ending																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Shewnigan Lake.....					.18	.34	.41	.46	.61	.28	.35	.27	.15	.09				
Victoria.....					.08	.23	.31	.28	.40	.34	.38	.35	.36	.23				
Salmon Arm.....					.12	.34	.37	.42	.42	.47	.43	.38	.35	.16				
Nasaimo.....					.04	.18	.23	.31	.42	.43	.42	.42	.31	.18				
Vancouver.....					.07	.24	.33	.39	.41	.46	.46	.46	.45	.29	.01			
Agassiz.....					.01	.10	.26	.31	.33	.37	.31	.30	.21	.04				
Tranquille.....				.03	.16	.31	.42	.46	.56	.58	.59	.51	.41	.17				
Summerland.....					.34	.43	.44	.45	.49	.45	.50	.52	.34	.09				
Kamloops.....					.01	.07	.22	.27	.39	.46	.41	.42	.55	.23	.02			
Harper's Ranch.....																		
Edmonton.....					.15	.27	.45	.58	.61	.57	.63	.51	.41	.18				
Lethbridge.....				T	.22	.48	.49	.49	.54	.56	.59	.57	.53	.37	.01			
Lacombe.....					.02	.13	.30	.42	.61	.55	.58	.65	.55	.49	.22			
Medicine Hat.....					.09	.36	.53	.56	.53	.47	.52	.65	.46	.14				
Fort Dunvegan.....																		
Fort Vermilion.....																		
Battleford.....			T	.20	.40	.45	.47	.53	.59	.60	.60	.57	.54	.43	.12			
Indian Head.....					.02	.25	.45	.46	.59	.49	.40	.39	.34	.06				
Moosejaw.....					.01	.32	.47	.46	.48	.42	.43	.46	.41	.35	.20			
Scott.....					.06	.16	.37	.47	.58	.61	.61	.60	.53	.31	.10	.02		
Rosthern.....					.17	.35	.42	.50	.54	.53	.46	.48	.41	.21				
Braden.....				.01	.17	.44	.62	.66	.62	.63	.62	.64	.27					
Winnipeg.....				.01	.17	.40	.44	.51	.56	.57	.52	.60	.50	.30	.01			
Haileybury.....				.01	.17	.26	.28	.29	.27	.29	.30	.31	.33	.28	.06			
Woodstock.....					.07	.27	.37	.47	.37	.43	.39	.36	.29	.12				
Lindsay.....						.16	.36	.39	.44	.47	.41	.46	.43	.22	.02			
Barrie.....					.14	.30	.26	.42	.43	.42	.44	.38	.28	.08				
Toronto.....				.01	.27	.47	.47	.52	.49	.45	.39	.37	.36	.25	.02			
Kingston.....					.10	.40	.51	.48	.46	.45	.48	.43	.34	.17				
Ottawa.....				.01	.22	.45	.50	.52	.50	.46	.47	.43	.44	.32	.02			
Montreal.....																		
Cap Rouge.....				T	.14	.27	.33	.35	.28	.27	.27	.27	.12	.09	.01			
Quebec.....					.13	.27	.32	.39	.37	.33	.32	.29	.24	.10				
Ste Anne de la Pocatiere.....				.11	.23	.26	.30	.29	.28	.27	.32	.33	.20	.02				
Sherbrooke.....					.09	.25	.29	.30	.35	.36	.33	.32	.35	.23	.05			
Fredericton.....					.03	.16	.17	.20	.27	.28	.26	.21	.18	.10	.01			
Charlottetown.....					.05	.16	.17	.17	.18	.26	.30	.26	.22	.13				
Napan.....					.02	.15	.20	.24	.25	.30	.32	.31	.30	.20	.01			
Wolfville.....					.06	.17	.20	.21	.23	.23	.25	.28	.24	.13				
Kentville.....				T	.11	.16	.20	.20	.17	.22	.27	.33	.30	.10				

## SUMMARY OF SUNSHINE RECORDS

SEPT. 1913	Shamugan Lake	Victoria	Salmon Arm.	Nanaimo.	Vancouver	Aagatz.	Tranquille	Sumnerland.	Kamloops.	Harper's Ranch	Edmonton.	Leithbridge.	Lacombe.	Medicine Hat.	Port Vaneagan	Battleford	Indian Head.	Moore Jaw.	Scott.	Southem.	Brandon.	Winnipeg.	Halileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kinston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Ste Anne de la Perte.	Sherbrooke.	Frederick.	Charlottetown.	Napan.	Wellville	Kenville
Registered duration in hours.....	87	92	107	95	111	72	131	125	88	..	137	152	142	131	..	170	107	124	137	126	138	142	88	97	104	101	126	118	134	...	77	86	80	91	57	59	71	62	58
Percentage of possible duration....	26	27	32	28	32	22	39	38	27	..	42	22	23	46	..	52	32	38	41	39	42	43	26	30	31	30	36	35	40	...	23	25	24	37	15	21	18	17	
Difference from average.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Minimum percentage in one day....	70	81	84	80	87	79	84	85	75	..	91	91	90	84	..	100	79	88	98	91	84	89	94	81	80	84	90	83	91	...	89	86	83	70	90	80	85	84	
Date of maximum..	4	4	1	29	30	29	24	1	24	...	31	1	22	22	...	12	26	26	16	23	25	11	13	13	31	13	13	14	14	...	4	7	7	14	22	22	22	21	
Number of days completely clouded.....	9	9	7	9	12	10	4	6	15	...	3	5	5	3	...	7	8	6	3	6	7	7	8	13	10	12	9	6	8	...	11	11	12	11	10	10	10	10	

*Thunder recorded:*

1. Deer Park, Wiarton, Brantford, Paris, Kakabeka Falls, Bisco.
2. Georgetown, Emsdale, Beatrice, Brantford, Lucknow, Bruce Mines, Liverpool, Loveland, Toronto, Parry Sound.
3. Waterton Mills, Truro.
4. Kakabeka Falls, Liverpool, Pt. Lepreaux.
5. Birnam.
- 6.
7. Wawaitin Falls.
8. Chicoutimi West.
9. Cartwright, Shawinigan Falls, Madoc, Bruce Mines, Morden, Aweme, Rutherglen, Treherne, Cap Rouge, Almasippi, Beauceville, Quebec, La Tuque, Kenora.
10. Madoc, Kakabeka Falls, Bruce Mines, Bisco, Schreiber, Rutherglen, Treherne, Brome, Parry Sound, Port Arthur, Winnipeg.
11. Georgetown, Emsdale, Beatrice, Lucknow, Clinton, Wawaitin Falls, Rutherglen, Souris, Parry Sound, White River.
12. Emsdale, Haliburton, Lucknow, Clinton, Birnam, Cottam, Rutherglen, Parry Sound, Listowel.
13. Windsor N.S., Nakusp, Chilliwack, Hope.
- 14.
- 15.
16. Qu'Appelle.
- 17.
- 18.
- 19.
20. Shawinigan Falls, Cedars, Morrisburg, Hillier, Montreal, La Tuque.
- 21.
- 22.
23. Revelstoke.
- 24.
- 25.
- 26.
- 27.
28. Point Escuminae, Advocate, Yarmouth, Stonecliffe.
- 29.
- 30.
- 31.

*Auroras recorded:*

- 1.
- 2.
3. White Shore Lake IV.
4. Lucknow IV, Clinton I, Schreiber III, White Shore Lake III, Rutherglen, Mistassini IV, Wexford, Aitkensville IV, Halkirk, Ranfurly III, Quebec, Waseca.
5. White Shore Lake IV, Dunstable I, Sion III, Hillsdown IV.
6. White Shore Lake IV, Sion IV.
7. White Shore Lake IV, Ranfurly, Sion III, Moose Jaw, Waseca.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
17. Mistassini IV.
18. Ranfurly III.
- 19.
- 20.
- 21.
- 22.
- 23.
24. Kakabeka Falls IV, Lae Pas, Muenster IV.
- 25.
26. Mistassini III.
- 27.
28. Aweme IV, Aitkensville IV.
29. Sion IV.
30. Birnam IV, Aweme II, Mistassini IV, Aitkensville III, Ranfurly III, Sion III, Hillsdown IV, Muenster IV, Anglea.
31. Aweme II, Schreiber IV, Aitkensville III, Ranfurly III, Sion III, Hillsdown III, Waseca, Muenster IV, Crescent Lake, Anglea.

## FORECASTS FOR OCTOBER 1913

The forecasts issued by this office at 11 p.m. each night, are for the 24 hours beginning at 8 a.m. the following day; and are published in most morning newspapers.

The number of these predictions issued during the month was 1208. These were divided as follows:

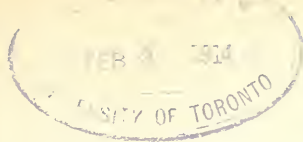
DISTRICT	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	77	59	8	10	81.8
Saskatchewan.....	78	61	12	5	85.9
Manitoba.....	82	60	12	10	80.5
Lake Superior.....	109	69	30	10	77.1
Lower Lake Region.....	124	94	21	6	85.5
Georgian Bay.....	124	100	21	3	89.1
Ottawa Valley.....	93	78	13	2	90.9
Upper St. Lawrence.....	93	76	12	5	88.2
Lower St. Lawrence.....	103	70	28	5	81.6
Gulf.....	111	76	21	14	77.9
Maritime Provinces West.....	107	72	27	8	79.9
Maritime Provinces East.....	167	77	20	10	81.3
Total.....	1208	892	228	88	83.3

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,  
Nov. 24th, 1913.



DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

NOVEMBER, 1913

No. 11

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## INTRODUCTION.

In compiling the present Review, the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## HIGH AREAS.

Ten areas of high pressure were charted. Three first appeared to the northward of the Western Provinces, two near Vancouver Island, one in the North Pacific States, three on the Middle Pacific States Coast, and one near James Bay. Three of the areas passed far to the northward of the Great Lakes and into Eastern Quebec and the Maritime Provinces, two over the Lower Lake Region, one broke up in the Northwestern States, while the remainder drew to the southern portion of the continent. The majority of the areas were of little intensity and were seldom attended by any low temperatures.

## LOW AREAS.

Sixteen areas of low pressure were charted. Seven first appeared in the far northwestern portion of the continent, one near Vancouver Island, one in the North Pacific States, four in the far southwest, one near the west coast of Florida, one near James Bay and one near Bermuda. Eight of the areas passed to the northward of the Great Lakes, three across and one to the southward of the Great Lakes, while others dispersed before they had reached the eastern half of the continent. The areas which united over the Great Lakes on the 9th, one from the northern British Columbia coast, the other from the vicinity of the west coast of Florida, were the two most important of the series, causing a gale of great violence on the Great Lakes, otherwise the areas were not of the usual energetic type of November depressions and as a result few gales were experienced over the Dominion.

## ATMOSPHERIC PRESSURE.

The results obtained at the Telegraphic Reporting Stations indicate that the mean atmospheric pressure for November was subnormal from the Pacific Coast to and including New Ontario, while in other parts of Canada, the values exceeded the normal. The divergence from normal was most marked in the Western Provinces, being nearly 0.2 of an inch below average in most localities and reaching -0.24 of an inch at Calgary. Positive differences in Eastern Canada were, as a rule, small, but attained +0.15 of an inch at St. John, N.B.



## GENERAL SYNOPSIS OF TEMPERATURE AND PRECIPITATION.

The following table is intended to show the average values of temperature and precipitation for each province for the month under review. District and Provincial means would, under ideal conditions, be derived from stations situated in equi-areal squares. But since in reality they are so situated as to appear, rather, constellation-wise upon the map, anomalous values arising from local topographical peculiarities may have received more than their just weight in the computation of the following averages.

Where no difference from normal is assigned, observations over a period long enough for reference are not available.

PROVINCE AND DISTRICT.	TEMPERATURE (FAHR.).						PRECIPITATION.				REMARKS.
	Mean Daily.	Mean Daily Maximum.	Mean Daily Minimum.	Mean Daily Range.	Extreme Highest.	Extreme Lowest.	Total in inches.	Difference from Normal.	Number of Days.	Greatest Fall.	
<b>BRITISH COLUMBIA—</b>											
South Vancouver Island . . . . .	41	47	36	11	64	25	9.80	-10%	20	3.35	Temperature 2° higher than normal at Victoria, decreasing northwards to 2° below.
North Vancouver Island . . . . .	42	47	37	10	59	21	21.20		25	3.60	Thunder at Alberni.
Lower Fraser River . . . . .	40	46	35	11	61	19	9.75	+20%	20	2.64	Temperature less than 1° below normal; local exceptions, both to temperature and precipitation.
Upper Fraser River . . . . .	30	38	22	16	65	5	1.10	-30%	8	0.52	
Okanagan Valley . . . . .	36	43	29	14	56	11	0.80	-50%	7	0.73	Temperature less than 1° above normal.
West Kootenay . . . . .	36	42	30	12	65	6	3.33		15	1.07	
East Kootenay . . . . .							1.44		6	0.55	
Thompson River . . . . .	36	42	29	13	63	12	1.38	-50%	12	1.71	Temperature 3° above normal.
North Columbia River . . . . .	32	39	25	14	55	8	5.25	+20%	14	1.05	
North Coast . . . . .	37	41	33	8	64	8	9.73		19	1.72	
Queen Charlotte Islands . . . . .	41	50	31	19	50	25	16.60	+115%	24	3.48	Temperature 2° below normal.
<b>ALBERTA—</b>											
North Saskatchewan River . . . . .	27	39	15	24	59	-14	0.08		1	0.30	
The Red Deer River . . . . .	29	41	17	24	65	-6	0.17		1	0.33	
The Bow River . . . . .	33	44	21	23	78	-17	0.33		3	0.60	
Athabasca River . . . . .	25	36	14	22	52	-8	0.25		1	0.25	Athabasca Landing, only, rep.
Peace River . . . . .	24	35	13	22	59	-20	0.40		2	0.30	Two stations only.
<b>SASKATCHEWAN—</b>											
Qu'Appelle River . . . . .	28	38	18	20	59	-10	0.54	-25%	3	0.60	Temperature 6° to 13° above normal.
S. Saskatchewan River . . . . .	31	43	19	24	62	-4	0.14		1	0.50	Temperature 7° above normal.
N. Saskatchewan River . . . . .	25	37	14	23	55	-9	0.20		1	0.40	Temperature 9° above normal at Battleford.
Saskatchewan Forks . . . . .	24	34	15	19	55	-4	0.38		2	0.65	Temperature 4° to 8° above normal.
Lower Saskatchewan River . . . . .	24	33	14	19	52	2					
<b>MANITOBA—</b>											
Qu'Appelle and Assiniboine Rivers . . . . .	29	39	20	19	64	-6	0.62	-25%	5	0.60	Temperature 2° to 10° above normal.
The Red River . . . . .	31	40	23	17	63	0	0.44	{ -10% to -30%	3	0.75	Temperature 2° to 10° above normal; thunder at Mississippi.
Dauphin Lake and River . . . . .	27	36	18	18	57	-5	0.90		4	0.80	
<b>ONTARIO—</b>											
Lake Superior Districts—											
<i>Ising River</i> . . . . .	31	38	25	13	55	-4	1.35		4	1.04	Temperature 5° above normal.
<i>Thunder Bay</i> . . . . .	32	41	23	17	69	-4	2.55		10	1.36	Temperature 6° above normal.
<i>Algona</i> . . . . .	32	39	24	15	78(?)	0	2.07		7	0.95	Temperature 4° to 5° above normal.
<i>Nipissing</i> . . . . .	32	39	24	15	62	-3	3.24		11	1.22	Temperature 6° above normal.
Upper Ottawa River . . . . .	34	41	28	13	63	12	2.77		10	0.82	Temperature 4° to 6° above normal.
Upper St. Lawrence and Ottawa Rivers . . . . .	35	43	28	15	68	15	2.53	+10%	8	1.64	Temperature 4° to 6° above normal.
Georgian Bay Counties . . . . .	38	46	31	15	66	12	4.08	-50%	11	2.17	Temperature +5° to +7°.
Lake Huron Counties . . . . .	40	46	34	12	67	20	3.43	{ normal	12	1.27	Temperature +4°.
Lakes St. Clair & Erie, Niagara Peninsula . . . . .	42	49	35	14	71	11	2.62	+8%	9	1.50	Temperature 2° to 6° above normal.
West Central Counties . . . . .	39	46	32	14	67	19	3.62	+12%	10	1.78	Temperature +3° to +6°.
Lake Ontario Counties . . . . .	40	46	34	12	67	10	4.11	+40%	11	2.80	Temperature +3°.
East Central Counties . . . . .	38	46	30	16	68	10	3.70	+30%	8	2.40	Temperature +5° to +9°.
<b>QUEBEC—</b>											
Middle St. Lawrence . . . . .	36	43	29	14	67	6	2.00	-30%	9	0.95	Temperature +2° to +6°.
Lower St. Lawrence & Gulf . . . . .	32	38	25	13	68	-5	1.70	-40%	9	1.07	Temperature +5°.
Lake St. John . . . . .	31	38	25	13	64	-1	1.55		11	0.55	Temperature +6°.
Northwestern Districts . . . . .	30	37	24	13	60	-7	2.80		7	1.10	Temperature +6°.
<b>NEW BRUNSWICK—</b>											
All Stations . . . . .	37	45	28	17	65	4	1.48	-60%	5	1.20	Temperature +2° to +5°.
<b>NOVA SCOTIA—</b>											
All Stations . . . . .	39	47	31	16	72	10	2.20	-55%	9	1.00	Temperature normal to +2°.
<b>PRINCE EDWARD ISLAND—</b>											
All Stations . . . . .	39	46	32	14	62	18	1.90	-60%	11	0.70	Temperature +2.5°.

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on November 7th, 1913.

Instrument—Dines Meteorograph.

Beginning of Ascent—1 a.m. G.M.T.

Barometer—735.5 mm.

Temperature = 5.3° C.

Direction of flight at Beginning—North.

Fell—340 km. distant N. 65° E.

Maximum Height—12.5 km.

Minimum Temperature—-64.5 C.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees.	
G.L. = 0.3	735.5	5.3	
0.4 5	720	15.0	
0.5	715	14.8	
1.0	672	10.0	
1.5	633	6.5	
1.7	620	5.0	
2.0	596	4.0	2.5
2.2	579	3.5	0.5
2.5	558	3.0	0.0
3.0	523	0.5	- 1.0
3.5	491	- 2.0	- 3.5
4.0	462	- 5.0	- 6.0
4.5	433	- 7.5	- 9.0
5.0	404	-10.5	-12.5
5.5	378	-14.0	-16.0
6.0	353	-18.5	-19.5
6.5	331	-23.0	-24.0
7.0	308	-27.5	-28.5
7.5	287	-31.5	-32.5
8.0	267	-35.5	-36.5
8.5	248	-39.5	-40.5
9.0	230	-43.0	-44.5
9.5	213	-47.0	-48.5
10.0	198	-51.5	-52.0
11.0	170	-59.5	-60.5
11.6	155	-63.5	-64.5
12.0	144	-63.5	
12.5	134	-62.5	

An area of high pressure was moving northwest along the Atlantic seaboard, and an area of low pressure was advancing from the northwest, giving southerly winds and mild weather over Ontario.

## WINDS, NOVEMBER, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....									
Prince Rupert.....									
Victoria.....	6139	448	42	W	6	6	7	10	N & W
Point Garry.....	7369	667	41			4	7	7	E
Vancouver.....									
Kamloops.....									
ALBERTA.									
Edmonton.....	3150	244	16	NW	1-11			6	SW
Calgary.....									
SASKATCHEWAN.									
Rattleford.....									
Prince Albert.....	3465	229	16	SE	9			5	
Swift Current.....	8352	541							
Qu'Appelle.....	8086	436	29	SE,SW	4		15	13	S & SW
MANITOBA.									
The Pas.....	5679	402							W
Winnipeg.....	8568	476	29	NE,NW	7		14	11	SE
ONTARIO.									
Port Arthur.....	2576	270							SW
White River.....	4977	433	25	NW	10		3	13	S
Cochrane.....	6611	407	24	NW	25		6	15	S & W
Harry Sound.....	7303	436	36	N	9		12	13	SW & W
Southampton.....	* 9307	1069	61	NE	9		9	7	SW
Pelee Island.....	8754	1233	54	W,NW	9		7	10	5
Woodstock.....	9958	564	36	W	10		6	12	10
Guelph.....	9140	485							SW
Toronto.....	10310	650	40	N	9	7	15	6	SW
Ottawa.....									
Stoneyliffe.....	3488	239	22	E	9		2	7	
Kingston.....	8316	491							SW
QUEBEC.									
Montreal.....	11322	705	41	NW	1	4	16	8	SW
Sherbrooke.....									
Quebec.....	9458	721	46	NE	9	5	14	7	SW & W
Father Point.....	11710	857	52	SW	1	7	15	7	W
Anticosti, SW.....									
Harrington.....									
NEW BRUNSWICK									
Pt. Escuminac.....	12297	913	50	NW	23	19	3	6	NW
Fredericton.....	8337	471	37	NW	23	1	8	12	W
St. John.....	10423	605	41	NW	23	9	12	6	SW & NW
Pt. Leprenaux.....	13489	837	49	NW	23	14	12	4	NW
NOVA SCOTIA									
Yarmouth.....	9420	595	32	NE & SE	2-9	4	14	19	SW & W
Wolfville.....									
Halifax.....	8564	605	37	SE	9	3	16	6	NW
Sable Island.....	8361	458							SW
Flat Point.....	13093	1076	56	N	2	15	6	9	W & NW
PRINCE EDWARD ISLAND									
Charlottetown.....	5798	459	30	SW	1	1	6	11	SW

\* Record for 24 days only.      Record for 22 days only.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. NOV., 1913

\*Stations not furnished with Registering Thermometers

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.					PRECIPITATION.				
				Mean.	Difference from average.	Y's Observations.	Highest.	Lowest.	Mean daily range.	Air cond.	Difference from average.	Highest fall in 24 h.	Days with .01 or more No. of four days.
British Columbia.													
S. Vancouver Island													
Altam (Heaver Creek)	49 15	121 40	398	39.2	-1.6	18 50	4	27.0	17 8	0.32	+1.44	1.50	1 9
Clayoquot	49 11	123 75	27	35.2	-2.1	14 61	8	23.0	20 21	0.85	+1.18	3.83	1
Close				35.2				14	23.0	20 21	0.85	1.5	1 11
Cobble Hill			33	40.7	-1.2	25 0	14	25.0	22 18	0.71	-	1.42	1 11
Cowichan (Tzouhalem)	48 25	123 12	170	41.7	-	25 0	1	25.0	22 18	0.71	-	1.42	1 11
Departure Bay				41.5	-	1 53.8	8	25.0	22 18	0.71	-	1.42	1 11
Gillis Bay				39.8	-	1 53.5	8	25.0	22 18	0.71	-	1.42	1 11
Ladysmith				40.1	-	1 53.5	8	25.0	22 18	0.71	-	1.42	1 11
Nanaimo	49 10	123 57	123	42.6	-0.1	13 34.7	6.8	26.0	23 19	1.22	-	2.20	1 11
Nanose Bay	49 17	124 13	136	40.9	-	2 53.5	8	25.0	22 18	0.71	-	1.42	1 11
Salt Spring Island	48 50	123 20		41.2	-	1 53.5	8	25.0	22 18	0.71	-	1.42	1 11
Shawangun Lake				39.1	-	1 53.5	8	25.0	22 18	0.71	-	1.42	1 11
Spoke	48 41	123 43	25	42.5	-	1 53.5	8	25.0	22 18	0.71	-	1.42	1 11
Victoria	48 24	123 47	55	44.0	+1.8	21 25.8	2.8	26.0	23 19	1.44	-1.17	3.8	17 13
N. Vancouver Island													
Holberg	50 39	125 18		42.4	-	4 26.0	9	24.5	17 11	4.4	-	3.60	26 4
Quatsino	50 32	127 4		41.8	-0.2	1 53.5	8	25.0	22 18	1.0	-2.16	2.8	26 4
Triangle Island	50 52	129 8	680										
Lower Fraser River													
Agassiz	49 14	121 31	52	45.7	-1.9	43 1.0	2	25.0	11 21	1.29	-	2.48	19 10
Chilliwack	49 10	121 57	21	46.4	-0.6	50.0	2	25.0	11 21	1.03	+1.14	1.40	21 9
Hope	49 25	121 29	500										
Ladner	49 05	124 3		43.7	-0.1	36.0	1.7	24.0	14 11.2	8.25	-2.20	1.30	13 17
New Westminster	49 13	122 6	330	41.4	-0.2	22.5	9	26.4	14 8.9	6.25	+0.92	2.3	21 9
North Nicomea	49 12	122 2	50	41.9	-0.7	35.0	2	26.0	13 12.2	3.23	+0.66	1.44	22 8
Panborton Hatchery	50 20	122 33		34.8	-	0 47.0	1.7	21.0	13 9.2	7.63	-	1.40	17 13
Panborton Meadows				33.7	-	1 40.0	1.7	21.0	13 9.2	7.63	-	1.40	17 13
Ruskin (Stave Falls)	49 16	122 23	125	40.9	-	4 35.6	9	32.0	3 21 10.4	11.82	-	2.63	23 7
Steveston (Garry Point)	49 21	123 17		42.4	-1.3	18 52.5	9.27	22.0	21 13.0	3.21	-1.36	0.95	16 14
Vancouver	49 17	123 5	136	42.4	-0.1	13 52.5	5.6	26.9	12 8.1	13.08	-1.37	1.44	27 3
Upper Fraser River													
Babine Lake	55 38	126 39		25.7	-	5 44.0	9	4.5	21 1.1	0.85	-	0.20	7 23
Barkerville	53 02	121 35	415	36.1	-1.6	25 38.0	11	15.1	23 12.2	2.8	-0.78	0.40	13 17
Chilivint (Big Creek)	51 40	123 0	3160	25.7	-	5 44.0	9	4.5	21 1.1	0.85	-	0.20	7 23
Fort George				25.3	-	2 45.0	4.5	10.1	7 15.0	0.18	-0.8	0.2	5 23
Fort St. James (Stuarts Lake)	54 28	121 12	2280	28.3	-3.9	-0 45.0	9 10	6.5	21 15.5	1.27	-0.30	0.14	5 23
Hydraulic				32.1	-	1 40.0	2.7	15.1	23 12.2	1.08	-	0.85	7 23
Quesnelle	52 59	122 34	1700	27.3	-5.8	18 51.0	5	15.0	23 14.3	0.8	-0.8	0.2	5 23
Okanagan Valley													
Duck Lake Ranch	50 3	119 20	1491	36.2	-	1 53.0	10	23.0	12 19 12.8	0.32	-	0.25	11 16
Healey	49 35	120 11	1771	36.6	+1.0	10 50.0	1.24	19.0	12 13 13.8	0.36	+0.61	0.25	4 26
Healey (Nickel Plate)													
Kelowna	49 15	121 0	1372	38.1	-	5 32.0	8	22.5	15 23 12.6	1.08	-	0.61	6 23
Kelowna (Okanagan Mission)	49 15	121 29	1290	38.4	+0.4	14 50.0	9	22.0	13 13.3	0.84	-0.44	0.25	10 20
Penticton	49 29	119 35		38.9	-	7 26.0	6	22.0	13 13.3	0.7	-	0.14	10 20
Princeton	49 29	120 29	1850	31.7	+0.4	18 50.0	6	11.0	13 14 17.0	0.75	-1.20	0.5	7 23
Richlands				33.5	-	1 47.0	17-3	12.0	20 23 17.5	1.09	-	0.73	3 27
Sumnerland	49 36	119 49	1100	36.2	-	7 31.0	9	21.0	14 12.5	0.59	-	0.20	8 27
Vernon (Coldstream Ranch)	50 14	118 15	1582	35.3	+1.0	19 49.0	10	19.0	14 22.2	0.89	-1.06	0.14	10 20
West Kootenay													
Crawford Bay	49 45	116 45	2000	35.1	-	3 47.0	2	21.0	13 11.0	2.39	-	0.57	16 14
Creston	49 2	118 27	1746	34.1	-	2 50.0	10	15.0	11 14.2	2.09	-	1.07	17 13
Grand Forks	49 2	118 27	1746	33.6	-	3 49.0	6	19.0	14 22 8.8	2.01	-	0.69	15 15
Greenwood	49 1	118 6	2480	33.7	-	2 57.0	7	10.1	12 21.1	0.66	-	0.20	13 17
Howse				35.7	-	2 53.0	7	20.0	14 23.3	0.51	-	0.62	10 20
Kaslo	49 52	117 6	1752	35.1	-	4 43.0	10	20.1	21 10.3	4.76	-	0.57	16 14
Nakusp				33.6	-	2 46.0	26	22.0	13 21 8.4	3.39	-	0.50	17 13
Nelson	49 29	117 21	1760	34.9	-1.4	10 46.0	2-11	23.0	21 10.3	3.00	+0.43	0.57	15 12
Pead d'Oreille (Waneta)			2260	33.4	-	1 47.5	9	18.0	13 11 11.8	3.42	-	0.85	15 15
Perry Spring	49 5	117 48	1750	34.7	-	1 48.0	4	23.0	22 13.5	3.15	-	0.45	16 14
Rossland				32.5	-	9 41.0	9	23.0	22 3.9	3.18	-	0.6	15 15
East Kootenay													
Carbrook	49 30	115 50		32.5	-	5 45.0	11	4.0	22 29.2	1.05	-	0.55	8 22
Elko (Fruitlands)	49 1	115 5	2684	36.2	+2.8	18 27.1	17	18.0	11 12.2	1.05	-0.59	0.55	6 24
Invermere	50 34	116 2	2630		-	1 46.0	4			1.03	-	0.29	4 26
Widmer	50 34	116 14	330	29.8	-	5 45.0	5	6.0	21 12.4	1.13	-	0.47	7 23
Thompson River													
Armstrong				33.6	-	1 29.0	16	12.0	14 13.6	1.1	-	0.25	15 15
Enderby				34.8	+3.2	10 51.0	26	17.0	12 12.5	1.70	+1.43	1.71	12 18
Harper's Ranch	50 41	120 29	1245										
Kamloops	50 9	120 39	2120	37.2	+2.8	23 63.0	15	18.1	15 13.6	0.71	-0.41	0.39	9 21
Monte Creek				35.3	+3.5	18 55.0	10	14.0	11 15.5	1.8	+0.19	0.59	7 23
Nicola Lake				35.1	-	7 51.0	16	19.0	13 11.4	1.88	-	0.43	15 15
Salmon Arm	50 42	119 35	1152	35.1	-	7 51.0	16	19.0	13 11.4	1.88	-	0.43	15 15
Salmon Arm (Exp. Farm)				35.7	-	7 51.0	16	19.0	13 11.4	1.88	-	0.43	15 15
Tappen				33.6	-	1 30.0	1	12.1	13 14 12.2	0.00	-	0.31	10 11
Tranquille	50 41	120 21	1350	36.6	-	2 37.8	115	20.0	13 15.0	0.6	-	0.25	7 23
Vancouver	51 36	119 45	1430	37.7	-	1 52.0	10	12.0	13 17.7	1.29	-	0.83	11 19
North Columbia River													
Fraser				3.5	-	1 55.0	4-6	21.0	14 2.4	1.80	-	0.75	6 24
Glacier	51 14	117 29	4072	26.2	+0.8	11 36.0	6-11	11.0	21 9.8	1.10	+1.42	1.05	22 8
Golden	51 0	118 6	1476	29.6	+1.3	12 43.0	5	8.0	21 22 19.4	2.10	-0.73	0.85	5 25
Ravenshoe	51 16	118 5	2550	33.1	-1.1	14 43.0	10	19.0	14 11.6	6.90	+2.46	1.90	22 8

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOV., 1913.

\* Stations not furnished with Registering Thermometers

STATION.			Elevation above sea level, in feet.	TEMPERATURE								PRECIPITATION					Days with 0.1 or more	No. of fair days	No. of aurora	No. of thunderstorms	No. of days
	Latitude N.	Longitude W.		Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.							
BRITISH COLUMBIA—CON.																					
North Coast																					
Bella Coola .....	52 40	126 54	150	36.7	+ 0.7	14	47.5	2-4	28.0	18	7.6	9.35	+1.76	1.58	19	11	..	..	1		
Prince Rupert .....	54 18	130 18	170	42.6	—	..	64.0	8	30.0	17-18	9.3	14.60	—	1.72	24	6	..	..	..		
Stewart .....	56 1	130 1	215	32.7	—	..	45.0	8-9	8.0	21	8.1	8.82	—	1.20	18	12	..	..	..		
Terrace .....	54 30	128 30	545	36.5	—	..	52.0	2	22.0	21	5.6	6.14	—	1.63	16	14	..	..	2		
Queen Charlotte Islands																					
Ikeda Bay .....	52 17	131 7	5	43.4	—	6	56.0	8	31.0	21	8.3	21.15	—	3.48	28	2	..	..	..		
Masset .....	53 58	132 9	10	38.4	- 2.0	16	50.0	1-18	28.0	21	10.8	12.06	+6.44	1.85	20	10	..	..	..		
Yukon Boundary																					
Atlin .....	59 35	133 38	2240	23.6	—	8	41.5	14	- 8.0	17	9.3	0.86	—	0.30	9	21	1	..	..		
YUKON—																					
Carcross .....	60 11	134 34	2171	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Dawson .....	64 4	139 29	1200	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
ALBERTA—																					
N. Saskatchewan River																					
Campsie .....	54 8	114 42	..	24.3	—	2	51.9	15	-10.2	22	23.4	0.11	—	0.10	2	28	..	..	..		
Coronation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Dayland .....	55 52	112 17	..	28.5	—	3	57.0	3	0.0	21	22.6	0.07	—	0.07	1	29	..	..	..		
Edmonton .....	53 33	113 30	2158	30.2	+ 6.0	30	58.7	3	3.0	22	21.3	0.07	-0.75	0.03	3	27	..	..	1		
Edmonton .....	52 0	112 0	2795	27.8	—	3	59.0	4	0.0	22	22.3	0.05	—	0.05	1	29	..	..	..		
Halkirk (Emsburg) .....	52 17	112 10	..	26.6	—	4	54.0	3	- 2.0	22	24.0	T	—	T	0	30	1	..	..		
Lloydminster .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Loveland .....	52 30	111 59	..	28.8	—	4	57.0	3	- 4.0	22	23.4	T	—	T	0	30	..	..	2		
Ranfurly (Waitefield) .....	53 29	111 35	2000	26.0	—	8	55.0	3	- 4.0	21	24.4	0.07	—	0.05	2	28	3	..	1		
Sion .....	53 54	113 15	..	28.3	—	2	52.0	4	3.0	21-22	22.0	0.20	—	0.08	5	25	4	..	..		
Vermilion .....	..	..	..	23.6	—	1	57.0	3	3.5	13	26.8	..	..	..	..	..	..	..	..		
Wadena .....	..	..	..	25.5	—	1	58.0	4	-14.0	22	27.6	0.30	—	0.30	1	29	..	..	..		
Wetaskiwin .....	52 58	113 23	2480	26.8	—	9	55.0	3	2.0	21	23.0	0.01	—	0.01	1	29	..	..	1		
The Red Deer River																					
Alix .....	52 24	113 10	2585	28.4	—	8	57.0	15	- 3.0	22	26.6	T	—	T	0	30	..	..	..		
Clemens .....	..	..	..	27.7	—	1	58.5	4	2.0	22	19.8	0.48	—	0.38	1	29	..	..	..		
Della .....	51 38	112 25	..	23.4	—	3	58.0	3	6.0	23	19.7	0.28	—	0.28	1	29	..	..	..		
Didsbury .....	51 40	114 8	..	33.4	+ 3.5	12	60.0	3	10.0	21-22	20.4	0.50	-0.12	0.36	3	27	..	..	..		
Harmattan .....	51 45	114 23	3500	27.4	—	7	55.0	4	- 6.0	22	30.6	0.30	—	0.15	3	27	..	..	..		
Hillsdown .....	52 14	113 29	2940	30.1	—	9	58.0	4	- 3.0	21	23.2	0.03	—	0.03	1	29	2	..	..		
Lacombe (Ex. Farm) .....	52 58	113 44	2753	29.3	—	6	59.8	3	- 0.5	21	26.1	0.06	—	0.06	1	29	..	..	..		
Perbeck .....	..	..	..	27.8	—	1	58.5	4	- 6.0	22	26.0	T	—	T	0	30	..	..	..		
Springdale .....	..	..	..	27.8	—	1	55.0	16	- 5.5	21	25.1	0.02	—	0.02	1	29	..	..	..		
The Bow River																					
Brooks .....	50 34	111 54	..	31.5	+ 6.3	18	60.0	15	3.0	21	23.6	0.97	+0.25	0.92	5	25	..	..	..		
Calgary .....	51 2	114 2	3427	34.3	—	1	61.0	3	4.5	21	24.8	0.87	—	0.60	4	26	..	..	..		
Expanse Coulee .....	..	..	..	32.1	—	10	58.0	3	- 2.0	21	23.0	..	—	..	..	..	..	..	..		
Gleichen .....	50 59	112 54	2652	32.1	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
High River .....	50 35	113 53	3394	32.0	—	12	63.0	10	5.0	21	21.0	0.35	—	0.20	3	27	..	..	..		
Lawrence (Parkland) .....	50 16	113 26	3500	23.3	—	6	45.0	24	1.0	22	24.9	0.45	—	0.20	3	27	..	..	..		
Letbridge (Exp. Farm) .....	49 43	112 51	..	35.1	—	6	66.1	10	9.0	14	23.7	0.36	—	0.20	4	26	..	..	..		
Macleod .....	49 44	113 24	3128	37.1	+ 8.4	16	64.0	10	9.0	13	17.2	0.20	-0.53	0.20	1	29	..	..	..		
Medicine Hat .....	50 1	110 37	2143	37.1	+ 8.7	29	61.0	4	9.0	29	21.4	0.10	-0.63	0.06	4	26	..	..	..		
Okotoks .....	..	..	..	31.0	—	1	75.0	3	- 0.5	22	26.1	..	..	..	..	..	..	..	..		
Ronola .....	..	..	..	..	—	1	59.7	4	—	..	..	0.23	—	0.18	2	28	..	..	..		
Strathmore .....	..	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Suffield .....	..	..	..	28.4	—	1	50.1	27-28	8.0	14	18.6	0.05	—	0.05	2	28	..	..	..		
Sundial .....	50 6	112 34	..	34.9	—	3	64.0	9	5.0	18	25.0	0.03	—	0.03	1	29	..	..	..		
Rocky Mountains																					
Banff .....	51 10	115 34	4542	28.2	+ 4.2	18	44.0	3	- 5.6	21	13.9	2.38	+0.71	0.67	13	17	..	..	..		
Brazee Forest (Coal Spur) .....	40 40	114 30	4225	20.3	—	1	51.0	2	-17.0	17	39.3	..	..	..	..	..	1	..	..		
Athabasca River																					
Athabasca Landing .....	54 43	113 17	1650	24.9	—	10	52.0	3	- 8.0	21	22.1	0.25	—	0.25	1	29	..	..	..		
Lanard .....	54 33	114 19	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Pembina .....	54 12	114 0	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Peace River																					
Beaver Lodge .....	55 20	119 24	..	23.9	—	7	59.0	3	-20.0	18	24.3	0.51	—	0.25	13	27	3	..	1		
Dunvegan .....	55 56	118 55	1806	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Fort Vermilion .....	55 27	116 3	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Fort Vermilion (2) .....	..	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Grand Prairie .....	..	..	..	..	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Peace River Crossing .....	56 16	117 15	..	24.2	—	6	50.0	15	-10.0	19-21	18.6	0.30	—	0.30	1	29	1	1	..		



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOV., 1911.

\*Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE.					PRECIPITATION.									
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of Auroras.	No. of thunderstorms.
SASKATCHEWAN—																		
Qu'Appelle River																		
Broadview	50 23	102 33	1960	28.5	+ 4.8	14	57.0	4	3.0	14 19.5	1.00	+0.02	0.60	4	26	..	..	..
Brownhill (Grenfell P.O.)	50 23	102 53	1857	25.5	+ 4.6	10	52.8	6	-0.8	22 21.6	0.70	-0.18	0.30	4	26	..	..	..
Crescent Lake	50 59	102 25	1658	31.9	+ 7.9	14	45.0	7	14.0	16 0.0	0.20	-0.19	0.20	1	29	..	..	..
Estevan	50 59	103 4	1858	30.0	—	2	56.8	5	3.0	14 23.0	0.35	—	0.10	5	25	..	..	..
Fort Qu'Appelle	49 12	—	—	23.6	—	6	56.0	17	1.0	14 17.3	0.40	—	0.20	3	27	..	..	..
Hubbard (Drumague)	51 5	103 24	—	26.6	—	3	55.0	—	—	—	—	—	—	—	—	—	—	—
Humboldt	52 12	105 23	—	27.0	+ 6.2	22	53.0	4	-10.0	23 24.5	0.41	—	0.31	2	27	..	..	..
Imperial	51 22	103 40	1924	27.0	+ 6.2	22	53.0	5	3.0	13 18.3	0.75	-0.03	0.60	3	27	..	..	..
Kamsack	50 28	103 40	—	27.0	+ 6.2	22	53.0	4	3.0	13 18.3	0.75	-0.03	0.60	3	27	..	..	..
Moose Jaw	50 21	105 35	1759	33.1	+12.6	18	59.0	10-16	7.0	13 21.6	0.15	-0.14	0.15	1	29	..	..	..
Mosomin	50 0	101 37	1884	27.2	+ 5.3	11	56.0	5	4.0	13 23.1	1.05	+0.45	0.80	3	27	..	..	..
Muenster (St. Peter's Mon.)	52 0	105 0	1870	24.7	—	7	49.0	4	-5.0	19 19.2	0.47	—	0.22	1	27	..	..	..
Pilger	52 25	105 9	—	25.0	—	3	53.0	4	-5.0	19 20.0	0.74	—	0.51	2	28	..	..	..
Pense (Gatesgarth.)	50 20	105 0	1879	30.3	+10.2	15	59.0	16	4.0	12 21.2	0.17	-0.30	0.10	1	29	..	..	..
Qu'Appelle	50 30	103 47	2115	29.0	+ 9.0	29	53.0	16	5.0	14-22 17.9	0.33	-0.66	0.15	5	25	..	..	..
Regina	50 27	104 37	1885	27.3	+ 5.0	28	55.0	16	0.0	14 20.9	0.15	-0.37	0.10	1	28	..	..	..
Yarbo (Fairfield)	50 39	102 4	—	24.8	—	6	57.0	4	-2.0	21 21.3	—	—	—	—	—	—	—	—
Yellow Grass	49 49	104 9	—	25.9	—	3	59.0	5	0.0	14 21.2	1.03	—	0.36	4	26	..	..	..
Yorkton	51 11	102 29	—	26.1	—	4	53.0	5	3.0	14 20.6	—	—	—	—	—	—	—	—
S. Saskatchewan River																		
Anglia	51 55	101 10	—	25.6	—	1	59.0	16	-4.0	20 27.0	0.50	—	0.50	1	29	3	..	..
Chaplin	50 26	106 39	2202	29.9	+ 7.4	29	58.0	10	2.0	13 23.1	0.62	0.17	0.02	1	29	..	..	..
Klinton (Divide)	51 46	108 10	3500	31.7	+ 5.3	5	56.2	10	14.2	12 18.9	8	—	8	0	30	..	..	..
Kelvynhurst (Nashby)	51 46	108 10	—	31.7	+ 5.3	5	56.2	10	14.2	12 18.9	8	—	8	0	30	..	..	..
Kindersley	49 21	109 29	2500	30.7	—	3	59.0	11	3.0	1-29 25.8	0.14	—	0.14	1	29	1	..	..
Larchmont (Glenbrian)	51 20	108 57	—	25.6	—	4	57.2	5	-1.8	22 24.8	0.25	—	0.25	1	29	..	..	..
Rathmullen	51 20	108 57	—	25.6	—	4	57.2	5	-1.8	22 24.8	0.25	—	0.25	1	29	..	..	..
Swift Current	50 20	107 45	2439	33.7	+ 7.0	27	62.5	24	1.0	13 24.5	0.03	-0.62	0.62	2	28	..	..	..
N. Saskatchewan River																		
Battleford	52 41	105 20	1620	27.9	+ 8.9	23	55.0	3	0.0	19 18.2	0.10	-0.39	0.10	1	29	..	..	..
Lloydminster	52 5	109 34	—	24.8	—	4	55.0	5	-8.0	19-21 24.9	0.40	—	0.40	1	29	..	..	..
Luseland	52 5	109 34	—	24.8	—	4	55.0	5	-8.0	19-21 24.9	0.40	—	0.40	1	29	..	..	..
Orion Lake	53 52	109 59	—	18.5	—	6	56.0	15	-4.0	21 25.3	0.00	—	0.00	0	30	..	..	..
Prince (Meota)	51 6	108 20	1700	18.5	—	6	56.0	4	-0.4	13 22.3	0.00	—	0.00	0	30	..	..	..
St. Walburg	51 59	109 30	—	23.9	—	2	55.0	4	-8.8	21 29.0	0.25	—	0.25	1	29	..	..	..
Scott (Ex. Farm)	53 6	109 29	—	24.8	—	5	53.0	3	-1.0	21 21.7	0.05	—	0.05	1	29	..	..	..
Waseca	53 6	109 29	—	24.8	—	5	53.0	3	-1.0	21 21.7	0.05	—	0.05	1	29	..	..	..
The Saskatchewan Forks																		
Melfort	52 47	104 30	—	23.7	—	8	51.0	4	4.0	13 17.2	0.20	—	0.10	2	28	..	..	..
Prince Albert	53 10	106 0	1432	28.8	+ 7.5	29	55.0	5	2.0	19 19.2	0.31	-0.66	0.20	3	27	..	..	..
Rosthern	52 40	106 20	1657	22.4	—	3	52.9	5	-4.1	19 19.6	0.34	—	0.25	2	28	..	..	..
Saskatoon	52 15	106 30	1571	25.2	+ 3.8	12	54.5	5	-3.5	19 21.1	0.65	+0.15	0.65	1	29	..	..	..
Lower Saskatchewan River																		
Lost River	53 17	104 21	—	23.6	—	3	52.0	5	2.0	23 18.6	—	—	—	—	—	—	—	—
MANITOBA—																		
Qu'Appelle and Assiniboine Rivers																		
Aweme (St. Albans)	49 42	99 33	1180	30.1	+ 2.0	29	59.5	5	2.0	22 21.3	0.34	-0.42	0.12	7	23	3	..	..
Boissevain	50 25	101 1	1703	27.7	+ 6.7	26	59.7	5	-3.0	14 23.6	0.29	-0.52	0.20	3	27	..	..	..
Brandon	49 51	99 57	1176	27.7	+ 6.7	26	59.7	5	-3.0	14 23.6	0.29	-0.52	0.20	3	27	..	..	..
Carmar	49 31	98 0	872	26.5	+ 7.0	28	58.0	5	-1.0	14 17.9	1.19	-0.03	0.60	5	25	..	..	..
Cypress River	49 33	99 3	1232	26.5	+ 7.0	28	58.0	5	-1.0	14 17.9	1.19	-0.03	0.60	5	25	..	..	..
Hillview	49 55	100 33	1400	27.0	+ 6.4	30	54.0	5-8	-5.7	14 20.1	1.07	+0.05	0.60	7	23	..	..	..
Minnedosa	50 15	99 50	1699	34.9	—	2	64.0	20	13.0	14 18.9	—	—	—	—	—	..	..	..
Ninette	49 24	99 38	1363	31.1	—	3	57.0	5	9.0	13 17.9	—	—	—	—	—	..	..	..
Norquay	49 14	99 51	1649	31.1	—	3	57.0	5	9.0	13 17.9	—	—	—	—	—	..	..	..
Pierson	49 11	101 5	1531	36.9	+ 8.1	19	60.0	6	9.0	14 18.1	0.47	-0.11	0.30	3	27	..	..	..
Pipestone	49 24	100 58	1400	36.9	+ 8.1	19	60.0	6	9.0	14 18.1	0.47	-0.11	0.30	3	27	..	..	..
Portage la Prairie	49 57	98 17	—	26.1	+ 7.8	20	56.0	5	0.0	14 17.7	—	—	—	—	—	..	..	..
Portage la Prairie (2)	49 56	98 17	—	26.1	+ 7.8	20	56.0	5	0.0	14 17.7	—	—	—	—	—	..	..	..
Russell	50 59	101 20	—	26.3	—	2	50.0	19	5.5	14 18.1	0.11	—	0.06	3	27	..	..	..
Souris	49 36	98 40	1212	31.8	+10.3	18	58.0	5	8.0	14 17.6	0.35	-1.41	0.25	4	26	..	..	..
Treherne	49 51	100 55	1444	31.8	+10.3	18	58.0	5	8.0	14 17.6	0.35	-1.41	0.25	4	26	..	..	..
Virden	49 51	100 55	1444	31.8	+10.3	18	58.0	5	8.0	14 17.6	0.35	-1.41	0.25	4	26	..	..	..
The Red River																		
Almasippi	49 14	99 20	—	32.4	+ 2.3	18	63.0	5	4.0	14 18.4	0.55	-0.22	0.42	3	27	..	..	..
Morden	49 11	98 6	978	33.0	+ 5.9	10	61.0	0	3.0	10 18.0	0.25	-0.83	0.25	1	29	..	..	..
Oak Bank	49 57	96 42	800	30.6	+ 3.5	17	54.0	4	0.5	14 16.1	0.63	-0.68	0.39	4	26	..	..	..
Stony Mountain	50 40	97 14	803	29.8	+10.0	31	58.0	6	2.0	10 21.8	0.03	+1.06	0.03	1	29	..	..	..
Winnipeg	49 53	97 7	760	31.0	+ 9.5	38	55.9	5	6.7	10 14.1	0.75	-0.33	0.50	7	23	..	..	..



## TEMPERATURE AND PRECIPITATION AT STATION 8 IN THE DOMINION OF CANADA, NOV., 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet	TEMPERATURE.						PRECIPITATION									
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Highest fall in month.	Days with .01 or more.	No. of fair days.	No. of auroras.	No. of thunderstorms.	No. of fogs.
MANITOBA—Continued																			
Dauphin Lake and River	52 18	97 23	710	26.4	—	6	48.0	27	—1.0	10 17.5	0.95	—	0.80	3 27	..	..	..	..	..
Beton River	51 8	100 2	957	27.8	—	7	57.0	6	—2.0	22 19.2	0.60	—	0.30	3 28	..	..	..	..	..
Dauphin	51 15	99 33		25.7	—	4	51.0	5	—5.0	14 16.7	1.13	—	0.53	8 22	1	..	..	2	..
Moose Horn Bay (Atkinsville)																			
Lake Winnipegosis	52 6	101 15	1112	21.7	—	4	53.2	4	3.0	9 16.9	0.33	—	0.11	7 23	1	..	..	1	..
Le Pas																			
ONTARIO—																			
The Lake Superior Districts																			
Rainy River				31.4	—	1	55.0	2-5	4.0	10 14.7	1.28	—	0.49	5 25	..	..	..	..	..
Port Frances	49 48	93 32	1102	29.8	+4.0	12	48.0	6	—4.0	10 19.0	1.44	+0.33	1.04	2 28	..	..	..	..	3
Kenora																			
Shoal Lake																			
Thunder Bay																			
Nakabeka Falls	48 29	89 26	912	31.0	—	6	56.0	5	0.0	10 19.2	1.20	—	0.61	8 22	..	..	..	..	3
Bruce Mines	48 27	89 12	614	33.2	+6.3	33	54.0	5	1.0	10 13.6	1.27	+0.04	0.36	10 20	..	..	..	..	4
Chapleau	48 50	87 15	933	32.1	+6.0	11	60.1	7	—3.8	10 17.5	5.14	—	1.36	11 19	..	..	..	..	..
Schreiber																			
Algoma																			
Bico	47 10	82 11	1333	32.0	—	1	55.1	6	7.1	12 14.8	1.80	—	0.65	10 20	..	..	..	..	..
Bruce Mines	46 18	83 55	595	37.2	+4.2	15	58.0	6	16.0	10-11 13.9	2.01	+0.39	0.82	5 25	..	..	..	..	..
Chapleau				27.5	—	1	55.5	6	10.0	26-27 15.5	1.25	—	0.40	4 26	..	..	..	..	2
Copper Cliff	46 30	80 59		34.6	—	6	60.0	22-23	16.0	27 15.5	0.82	—	0.46	3 27	..	..	..	..	..
Grassett				34.9	—	1	58.0	2	0.0	11 19.1	2.87	—	0.90	9 21	..	..	..	..	..
Huron Bay																			
Porcupine	45 40	82 11		28.5	—	3	54.0	6	4.0	27 17.0	1.89	—	0.70	8 22	..	..	..	1	..
Providence Bay	48 35	85 16	1252	35.1	—	3	51.0	22	20.0	9 11.1	2.35	—	0.74	4 26	..	..	..	..	..
Timmins (Sandy Falls)				38.4	—	6	53.0	6	1.6	27 15.1	2.91	—	0.75	13 15	..	..	..	..	..
White River				27.9	+5.4	23	52.0	21	1.9	27 18.3	2.15	—0.19	0.60	10 20	..	..	..	..	..
Nipissing																			
Cochrane	49 2	81 0	945	28.1	—	2	51.0	5	—3.0	27 15.3	3.79	—	1.15	8 22	..	..	..	1	..
Halifax	47 29	79 30	687	33.9	+1.8	67	57.3	7	13.1	27 16.6	3.01	+0.41	0.61	14 16	..	..	..	..	..
Tropas Falls	48 45	80 40	820	29.9	—	1	53.2	5	5.2	27 13.9	3.63	—	1.22	13 17	..	..	..	..	..
Innisburg																			
Montreal River	47 8	79 29		34.3	—	3	62.0	23	10.0	12 17.8	2.55	—	0.53	9 22	..	..	..	1	..
Upper Ottawa River																			
Butterfield (Lake Talon)	46 15	74 48		33.3	+3.7	19	63.5	7	11.5	28 11.6	2.60	—2.22	0.69	5 25	1	3	..	..	..
Stonchiff (Rockville)	46 0	78 6	557	35.0	+5.7	21	57.0	23	16.0	27 15.3	3.53	+1.28	0.82	14 16	..	..	..	1	..
Upper St. Lawrence																			
and Lower Ottawa Rivers																			
Almona	45 12	76 13	310	37.8	—	2	63.7	22	15.4	27 14.4	3.08	—	0.79	10 20	..	..	..	1	..
Bloomfield	43 59	77 21	700	41.1	+4.3	14	61.0	23	22.0	27 13.8	3.75	+1.11	1.64	8 22	..	..	..	..	..
Hillier				40.0	—	9	61.0	9	21.0	25 9.4	1.45	—	0.90	3 27	..	..	..	..	..
Kingston	44 13	76 29	2-8	41.2	+5.1	59	60.0	9	22.1	27 13.8	2.17	—0.42	0.90	14 16	..	..	..	..	..
Montague	44 56	75 57			—	4	62.0	8	18.0	27	2.59	—	0.98	8 22	..	..	..	1	..
Morrisburg				38.2	—	1	66.0	8	15.2	27 17.3	3.37	—	1.03	9 21	..	..	..	..	..
North Gower	45 8	75 43		37.6	—	11	67.0	12	17.0	26-27 20.8	0.93	—	0.61	8 27	..	..	..	..	..
Ottawa	45 26	75 42	294	38.0	+5.7	51	64.0	22	18.0	28 14.0	3.13	+0.78	1.09	11 19	..	..	..	1	..
Renfrew	45 26	76 39	116	37.6	+4.2	21	68	23	15.0	27 13.3	2.27	—0.13	0.67	10 20	..	..	..	2	..
Georgian Bay Counties																			
Barrie	44 23	79 41	839																
Beattie	45 8	79 20	800	37.6	+6.7	38	62.0	22	20.0	12 14.1	4.51	—0.17	1.40	10 20	..	..	..	..	..
Big Chute (Baskin P. O.)	44 55	79 20	653	41.5	—	1	64.0	22	21.0	26 19.2	4.32	—	1.49	9 21	..	..	..	..	..
Calverton	44 38	80 40	600	37.9	+4.6	25	66.0	22	19.6	27 15.5	3.87	—0.53	0.72	10 20	..	..	..	..	..
Collingwood	44 31	80 2																	
Gravenhurst	44 54	79 20		37.8	+5.6	42	62.0	22-23	24.0	12-27 15.8	3.10	—0.26	1.14	13 17	..	..	..	1	..
Huntsville	45 19	79 8		42.3	—	7	61.0	7-22	23.0	27 14.0	3.91	+0.73	1.23	11 19	..	..	..	..	..
Midland	44 44	79 53	750	43.8	—	6	62.0	20	23.0	4-10	3.37	—	0.61	8 27	..	..	..	..	..
Markdale				38.7	—	2	66.0	20	23.0	10-16 13.6	5.58	—	2.17	9 21	..	..	..	..	..
Meaford																			
Orillia	44 37	79 24	775	38.5	+6.7	22	65.0	22	20.0	27 13.7	4.14	—0.39	1.47	8 22	..	..	..	..	..
Owen Sound	44 34	80 55	597	38.0	—	1	64.0	22	21.0	27 13.7	4.14	—0.39	1.47	8 22	..	..	..	..	..
Perry Sound	45 19	80 0	635	38.4	+4.9	37	60.0	7	20.0	11-27 14.4	3.84	—0.16	1.05	14 16	..	..	..	2	..
Rosville	45 15	78 57	1038	36.6	—	6	60.0	22	15.0	11 11.1	3.49	—	1.33	13 17	..	..	..	..	..
Lake Huron Counties																			
Braman	43 2	81 55	600	40.0	+4.5	29	66.8	22	23.0	10 11.1	2.89	—0.76	1.11	5 25	..	..	..	2	4
Clinton	43 32	81 37		39.9	+4.7	11	65.0	24	23.0	12 11.6	4.27	+0.57	1.27	15 15	..	..	..	1	4
Goderich	43 45	81 41		39.7	+0.9	23	65.5	12	19.3	12 10.3	2.78	+0.28	1.09	13 17	..	..	..	1	3
Lacknow	43 46	81 30	908	34.2	+2.1	37	63.0	20	20.3	12 13.2	4.40	+0.08	0.75	14 16	..	..	..	2	2
North Bruce	43 23	81 25		40.2	+4.0	25	65.0	21	20.0	27	2.91	—0.32	0.72	16 20	..	..	..	1	..
Southampton	44 30	81 21	656	41.5	+4.6	37	65.5	21	26.1	10-28 14.0	3.32	+0.07	1.12	16 14	..	..	..	..	..
Lakes St. Clair & Erie, Niagara Peninsula																			
Chatham	42 23	82 12	595	42.5	+3.9	27	71.0	22	21.0	10 14.8	3.03	+0.21	1.50	6 24	..	..	..	..	..
Cottam	42 7	82 45	608	39.6	+0.3	28	67.0	11	21.2	10 11.0	2.05	—0.41	0.70	8 22	..	..	..	1	..
Dutton				41.7	—	1	68.5	21	13.0	12 15.9	1.15	—	0.40	3 27	..	..	..	..	..
Grimsby	43 13	76 36		43.2	—	4	97.0	7	25.0	10 13.3	3.32	—	0.90	10 20	..	..	..	..	..
Pelee Island	41 59	82 32	585																
Port Burwell	42 39	80 55	592	40.8	+2.6	10	58.0	7 22	23.5	11-12 10.7	2.82	+0.37	0.99	8 22	..	..	..	..	..
Port Dover	42 39	80 15	635	40.1	+3.5	37	67.5	22	19.5	11 12.7	3.81	+1.64	0.74	16 14	..	..	..	..	..
Port Stanley	42 40	80 13	542	40.3	+2.3	39	57.2	6	20.5	10 13.0	3.85	+0.34	0.78	18 12	..	..	..	6	..
St. Catharines	43 4	79 17	317	42.9	+3.6	27	67.0	12	27.0	11 12.9	2.09	+0.43	0.73	8 22	..	..	..	1	..
Stoney Creek	43 15	79 45	292	41.6	—	8	66.0	2-27	17.0	11 11.2	0.98	—	0.38	5 25	..				

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOV., 1911.

\* Stations not furnished with registering thermometers.

STATION	TEMPERATURE										PRECIPITATION					No. of thunderstorms.	
	Latitude N.	Longitude W.	Elevation above sea level in feet.	Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from Average.	Highest (in 24 hours).	Days with 0.1 or more.		No. of fair days.
ONTARIO—Continued—																	
West-Central Counties																	
Alton.....	43 51	80 5	1250	37.6	+ 4.6	27	64.2	23	18.9	1 15	4.0	1.14	1.31	2	12	12	1
Brantford.....	43 10	80 21	750	49.8	+ 1.2	31	57.6	22	24.9	5 14	15.1	7.8	4.9	1	14	14	2
Elora.....	43 41	89 24	1274	57.7	+ 1.3	17	64.0	21	22.0	11 17	11.0	7.6	4.6	1	11	11	1
Guelph.....	43 33	80 16	1050	41.4	+ 3.8	28	68.0	22	2.0	11 13	11.0	8.8	9.2	1	12	12	1
Listowel.....	43 44	80 58	1262	38.8	+ 5.9	16	62.0	21	1.0	11 18	11.0	4.47	4.9	1	11	11	1
London.....	42 59	81 13	808	40.0	+ 4.1	29	67.0	22	13.0	1 14	14.0	4.46	4.9	1	12	12	1
Paris.....	43 12	80 25	840	41.0	+ 1.6	4	66.0	22	1.0	10 11	14.1	4.15	4.80	1	12	12	1
Shelburne.....	43 23	81 0	1191	37.6	+ 2.8	48	69.0	22	21.0	1 11	11.1	4.0	4.12	1	12	12	1
Stratford.....	43 8	89 47	980	39.5	+ 4.2	41	64.0	21-22	21.5	5 13	13.0	4.5	4.28	1	12	12	2
Lake Ontario Counties																	
Agincourt.....	43 47	79 16	590	40.2	+ 4.5	17	64.0	22	25.0	27 13	13.0	7.96	7.74	1	14	14	5
Aurora.....	43 57	79 24	886	38.2	—	5	63.0	22	27.0	27 14	14.0	4.78	4.01	1	12	12	1
Hamilton.....	43 16	79 54	303	42.5	+ 5.1	40	66.0	22	26.0	11 11	11.1	4.29	4.07	1	12	12	1
Oshawa.....	43 53	78 32	331	38.3	+ 1.3	2	60.0	22	21.0	1 3	3.0	4.4	4.28	1	12	12	1
Toronto.....	43 40	79 24	350	42.2	+ 1.8	72	62.6	22	27.0	11 13	13.1	8.0	4.80	1	14	14	4
Toronto (St. Lawrence Home)	43 40	79 24	350	42.2	+ 1.8	72	62.6	22	27.0	11 13	13.1	8.0	4.80	1	14	14	4
Uxbridge.....	43 40	79 24	350	42.2	+ 1.8	72	62.6	22	27.0	11 13	13.1	8.0	4.80	1	14	14	4
Wexford.....	43 44	79 17	555	38.7	—	2	60.0	27	23.0	12 25	12.2	4.9	4.10	1	10	10	—
East-Central Counties																	
Bacofort.....	45 1	77 50	—	35.3	+ 4.8	4	67.0	22	1.0	11 15	—	—	2.39	2.15	8	—	4
Haliburton.....	45 1	78 28	1059	36.7	+ 5.4	25	62.0	22	1.0	5 15	15.0	—	—	—	—	—	—
Kilmount.....	44 45	78 38	920	34.8	+ 3.3	11	63.0	22	15.0	4 11	15.2	1.29	0.78	0.7	8	—	—
Lakelse.....	44 25	78 15	850	41.0	+ 5.6	3	68.0	3	29.0	21 15.2	15.2	1.93	0.0	0.1	1	—	—
Lindsay.....	44 20	78 45	872	41.3	+ 3.8	14	63.0	22	21.1	12 13.8	13.8	4.50	2.46	1.4	4	20	—
Madoc.....	44 30	77 29	575	37.1	—	1	62.0	22	19.0	1 15	15.1	—	—	—	1	—	—
Norwood.....	44 17	78 19	722	38.9	+ 8.2	43	64.0	22	29.0	12 13	13.8	4.41	1.86	2.25	10	—	—
Uran.....	44 54	78 18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Quebec—																	
St. Lawrence.....	46 11	70 48	357	34.4	—	1	67.0	24	6.0	28 18.5	18.5	1.91	—	0.8	4	22	—
Beauville.....	45 10	72 36	678	36.8	+ 5.5	33	64.0	24	13.0	10 28	18.6	1.91	—	0.5	4	22	—
Brome.....	46 46	71 15	138	33.4	—	3	61.0	23-24	13.2	27 14.9	14.9	2.1	—	0.88	10	—	—
Cap Rouge.....	46 46	71 15	138	37.3	—	1	63.0	24	16.0	25 16.5	16.5	2.43	—	0.74	6	24	—
Cedar Rapids.....	45 55	71 21	896	—	—	—	60.0	23	8.0	28 18	18	—	—	—	—	—	—
D'Israeli.....	45 50	72 30	900	—	—	1	62.0	24	9.0	28 18	18	—	—	—	—	—	—
Drummondville.....	45 30	72 30	900	—	—	1	64.0	22	12.0	28 18	18	—	—	0.76	13	17	—
Huberden.....	45 29	72 41	911	—	—	1	62.0	22	12.0	28 18	18	—	—	0.86	9	21	—
Mataneche.....	45 30	73 35	187	39.0	+ 5.9	59	62.3	9	17.0	28 18	18	2.43	1.0	0.81	16	16	—
Metroville.....	46 15	72 36	—	34.3	+ 4.5	33	62.0	23	11.2	28 12.6	12.6	1.8	—	0.78	10	—	—
Nicolet.....	46 15	72 36	—	34.3	+ 4.5	33	62.0	23	11.2	28 12.6	12.6	1.8	—	0.97	64	14	1
Quebec.....	46 48	71 13	296	—	—	—	61.0	—	—	—	—	—	—	—	—	—	—
Sto. Anne de Bellevue.....	45 27	73 59	—	38.9	—	2	61.0	21	25.0	8 7.0	7.0	1.9	—	0.4	4	23	—
Shawbridge.....	46 34	72 43	—	38.0	+ 2.0	12	60.0	23	8.0	27 16.7	16.7	1.95	—	0.6	—	—	—
Shawville.....	46 34	72 43	—	38.0	+ 2.0	12	60.0	23	8.0	27 16.7	16.7	1.95	—	0.6	—	—	—
Shawbrooke.....	45 32	72 5	620	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lower St. Lawrence & Gulf																	
Anticosti E. Pt.....	49 6	61 42	30	32.8	+ 6.2	30	46.0	8 11	12.0	2	—	1.71	—	0.75	4	25	—
Anticosti S.W. Pt.....	49 52	62 34	30	31.9	+ 1.5	32	47.0	9	9.0	27	—	1.37	—	1.59	14.0	12	18
Anticosti W. Pt.....	49 25	63 53	30	35.1	+ 5.0	32	62.0	10	4.0	27	—	1.03	—	0.35	0.7	23	—
Bicquet.....	49 6	66 45	30	49.4	+ 2.6	32	58.0	9	18.0	27	—	2.8	—	0.6	0.81	16	14
Cape Chatte.....	49 16	65 20	43	33.1	+ 2.6	32	61.0	9	13.0	27	—	2.8	—	0.6	0.81	16	14
Cape Magdale.....	49 16	65 20	43	33.1	+ 2.6	32	61.0	9	13.0	27	—	2.8	—	0.6	0.81	16	14
Causapiscat.....	48 21	68 12	850	34.1	+ 4.6	39	60.0	10	2.0	28 12.4	12.4	1.77	—	1.79	21	9	—
St. Anne de la Pocatiere.....	47 22	70 2	65	36.8	—	3	63.0	10 11	9.5	27 11.9	11.9	2.8	—	1.07	9	—	—
Tadoussac.....	47 22	70 2	65	33.3	—	1	56.0	10 11	9.5	27 11.9	11.9	2.8	—	1.07	9	—	—
Lake St. John																	
Chicoutimi.....	48 25	71 5	150	31.6	+ 5.5	34	59.0	10	1.2	29 17.5	17.5	1.88	—	0.12	0.75	19	18
Chicoutimi (2).....	47 39	72 18	1333	30.7	—	3	59.0	11	1.0	29 17.5	17.5	1.88	—	0.70	9	—	—
Lake Edward.....	47 39	72 18	1333	32.8	—	2	64.0	11	3.0	28 16.6	16.6	1.5	—	0.70	9	—	—
La Tuque.....	47 54	72 15	360	30.6	—	2	59.0	10	0.0	27 28 13.4	13.4	1.5	—	0.49	11	19	4
Matamoras.....	47 54	72 15	360	30.6	—	2	59.0	10	0.0	27 28 13.4	13.4	1.5	—	0.49	11	19	4
The Northwestern Districts																	
Abitibi.....	48 33	79 22	—	30.1	+ 5.9	18	47.0	22	10.0	26 27 10.5	10.5	1.74	—	0.6	0.6	9	21
Amos.....	48 33	79 22	—	30.4	—	1	59.5	8	0.5	1 13.7	13.7	2.1	—	0.31	8	21	—
Manouan Crossing.....	47 54	73 50	—	34.2	—	1	60.0	7	14.0	28 13.0	13.0	3.2	—	1.10	6	24	—
Timiskaming.....	48 12	75 43	—	27.2	—	2	55.0	5	0.1	28 13.0	13.0	1.0	—	0.78	7	13	1
Wapamongue (Dam A).....	48 12	75 43	—	27.2	—	2	55.0	5	0.1	28 13.0	13.0	1.0	—	0.78	7	13	1
White Shore Lake.....	48 12	75 43	—	27.2	—	2	55.0	5	0.1	28 13.0	13.0	1.0	—	0.78	7	13	1
The North Shore																	
Clark's City.....	50 10	68 25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New Brunswick—																	
Chatham.....	47 3	65 29	21	36.6	+ 3.9	39	64.0	10	6.5	28 15.4	15.4	1.5	—	2.43	0.6	7	2
Chatham.....	48 4	66 22	129	33.3	+ 4.8	37	58.0	23	5.0	29 11.9	11.9	1.4	—	2.58	1	24	—
Fredericton.....	45 57	66 36	164	35.8	+ 3.4	38	62.0	10	5.0	29 11.9	11.9	1.4	—	2.58	1	24	—
Fredericton (Ex-Farm).....	45 57	66 36	164	36.8	—	1	62.0	10	5.0	29 11.9	11.9	1.4	—	2.58	1	24	—
Grand Falls.....	46 9	64 45	50	36.3	+ 1.8	16	62.0	10	1.5	28 15.4	15.4	1.5	—	1.86	0.6	5	27
Moncton.....	45 4	66 28	30	49.6	+ 3.1	35	57.0	10-21	1.5	28 15.4	15.4	1.5	—	2.27	0.6	5	27
Point Lepreau.....	45 4	66 28	30	49.6	+ 3.1	35	57.0	9	12	28 15.4	15.4	1.5	—	3.11	0.6	24	—
St. John.....	45 17	68 4	70	37.3	+ 2.8	39	61.0	9	12	28 15.4	15.4	1.5	—	3.11	0.6	24	—
St. Stephen.....	45 11	67 16	35	37.3	+ 3.9	16	65.0	6	28	1 1.5	1.5	2.22	—	0.6	3	27	—
St. Stephen.....	45 38	67 38	96	37.1	+ 3.6	16	62.0	9-10	6	28 1 1.5	1.5	2.22	—	0.6	3	27	—
Williamsburg.....	45 38	67 38	96	37.1	+ 3.6	16	62.0	9-10	6	28 1 1.5	1.5	2.22	—	0.6	3	27	—

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOV., 1913.

\*Stations not furnished with Registering Thermometers.

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION			Days with .01 or more	No. of fair days	No. of Auroras	No. of thunderstorms	No. of fogs	
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Amount	Difference from average						Heaviest fall in month.
NOVA SCOTIA—																			
Advocate.....	45 38	61 59	50	39.3	—	2	64.0	10	12.0	3	16.9	1.99	—	0.85	7	23	1	1	
Antigonish.....	45 38	61 59	50	38.5	—	2	65.0	8-11	13.0	29	19.0	2.28	—3.10	1.00	8	22	1	1	
Halifax.....	44 39	63 36	83	40.1	+ 0.4	38	67.4	7	20.6	3	17.2	1.78	—	0.74	8	24	1	1	
Kentville.....	45 3	66 40	40	36.0	—	2	65.0	23	17.0	3	14.3	1.97	—	0.64	10	20	1	1	
Kentville (2).....	45 3	66 40	40	38.5	—	1	65.0	10	21.0	3-30	13.5	2.38	—	0.82	7	23	1	1	
Liverpool.....	44 0	64 40	56	42.6	—	1	66.0	3	13.0	4	23.4	2.38	—	0.82	7	23	1	1	
Meigonish.....	44 0	64 40	56	42.6	—	1	66.0	3	13.0	4	23.4	2.38	—	0.82	7	23	1	1	
Nappan.....	45 23	64 19	40	38.1	—	1	65.0	10	19.0	29	14.9	1.67	—	0.43	7	23	1	1	
New Germany.....	45 23	64 19	40	38.1	—	2	72.0	2	16.0	28	20.6	2.18	—	0.73	6	25	1	1	
Parsonsboro.....	45 23	64 19	40	38.1	—	2	72.0	2	16.0	28	20.6	2.18	—	0.73	6	25	1	1	
Port Hastings.....	43 58	59 46	25	44.3	+ 0.6	23	59.0	10	28.0	28	9.0	1.98	—3.70	0.41	15	15	1	4	
Sable Island, E. Pt.....	46 10	60 10	35	39.2	+ 0.3	40	61.5	11	14.5	29	14.4	2.06	—3.38	0.42	12	18	1	1	
Sable Island (Main Station).....	46 10	60 10	35	39.2	+ 0.3	40	61.5	11	14.5	29	14.4	2.06	—3.38	0.42	12	18	1	1	
Sydney.....	45 22	63 18	77	38.0	+ 1.9	41	65.0	9	11.0	29	17.6	3.22	—1.03	1.32	12	18	1	3	
Truro.....	45 25	63 13	37	37.8	—	2	68.0	10	9.5	29	19.7	3.43	—	1.16	9	21	1	1	
Truro (2).....	45 25	63 13	37	37.8	—	2	68.0	10	9.5	29	19.7	3.43	—	1.16	9	21	1	1	
*Whitehead.....	45 15	61 8	20	39.2	+ 1.7	11	67.0	8-24	16.0	29	15.4	1.92	—1.18	0.82	9	21	1	1	
Windsor.....	44 59	64 6	90	39.3	+ 2.1	14	69.4	23	19.9	29	13.3	2.03	—2.01	0.94	7	23	1	1	
Wolfville.....	45 7	64 20	65	41.9	+ 1.7	35	65.0	9	15.2	28	13.6	1.20	—3.78	0.46	9	21	1	1	
Yarmouth.....	43 50	66 2	65	41.9	+ 1.7	35	65.0	9	15.2	28	13.6	1.20	—3.78	0.46	9	21	1	2	
P. E. ISLAND—																			
Charlottetown.....	46 14	63 10	38	38.6	+ 2.5	38	60.0	16	22.0	28-29	11.9	1.74	—2.66	0.67	10	20	1	1	
Charlottetown (Exp. Farm).....	46 14	63 7	75	38.8	—	4	62.0	4	18.0	29	15.3	2.09	—	0.70	12	18	1	1	
Hamilton.....	46 25	63 48	125	36.0	—	1	66.0	3	13.0	4	23.4	2.38	—	0.82	7	23	1	1	
Summerside.....	46 25	63 48	125	36.0	—	1	66.0	3	13.0	4	23.4	2.38	—	0.82	7	23	1	1	
NEW FOUNDLAND—																			
*Amour Point.....	51 28	56 51	27	33.6	+ 1.3	29	55.0	10	15.0	27	—	0.74	—3.77	0.45	9	21	1	1	
Burin.....	47 0	55 10	27	33.3	—	4	50.5	11	17.5	29	10.0	3.58	—	0.64	20	10	1	4	
*Cape Norman.....	51 38	55 52	30	40.6	—	26	67.4	19	19.8	28	14.9	1.60	—	0.35	12	18	1	2	
Fogo.....	49 43	54 17	30	33.6	+ 1.3	29	55.0	10	15.0	27	—	0.74	—3.77	0.45	9	21	1	1	
*Point Riche.....	50 42	57 25	35	33.6	+ 1.3	29	55.0	10	15.0	27	—	0.74	—3.77	0.45	9	21	1	1	
Port aux Basques.....	47 35	59 10	27	33.3	—	4	50.5	11	17.5	29	10.0	3.58	—	0.64	20	10	1	4	
St. George's.....	47 34	52 42	125	36.0	—	1	66.0	3	13.0	4	23.4	2.38	—	0.82	7	23	1	1	
St. John's.....	47 34	52 42	125	36.0	—	1	66.0	3	13.0	4	23.4	2.38	—	0.82	7	23	1	2	
BERMUDA—																			
Prospect.....	32 17	64 46	151	67.7	—0.5	22	77.6	10	51.0	25-26	10.4	11.36	+7.04	3.82	20	10	1	2	

## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING NOV., 1913.

STATIONS.	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date	
BRITISH COLUMBIA—										
Alkali Lake										
Aanis (Canoe Point)	1.52	14	14	0.39	6	1.0	2	0.5	23	
Beaver Lake	6.32	20	10	1.50	15					
Coquitlam	11.51	14	16	2.89	23					
Cariboo Road No 141.										
Donnan's Island.	13.28	17	13	1.77	25	3.0	1	3.0	22	
Forquaham	0.18	1	15	0.18	9	78.0	14	12.0	23	
Goldstream Lake	12.50	22	8	2.24	16	1.0	1	1.0	20	
Hydraulic										
Hornby Island.	13.72	15	15	2.00	24	2.0	1	2.0	23	
Ivermere	0.15	2	21	0.09	11	6.3	7	2.0	17	
Jordan River	15.60	22	7	2.53	15					
Jordan River (Bear Creek)	16.96	22	3	4.09	16	12.7	5	5.0	20	
Little Qualicum (Fr. Cr. V.I.)	9.95	12	15	1.95	23					
Lumby	0.83	11	15	0.13	7	6.3	4	3.5	24	
Nass Harbour.										
Rock Creek	0.85	5	25	0.24	17					
Shawigan Lake										
Sooke Lake	16.01	23	7	3.97	25	1.3	1	1.3	21	
Wycliffe.										
ALBERTA—										
Bardo.	0.00					0.0				
Bismark.										
Brueckerheim.						0.5		0.5	17	
Bittern Lake						0.5	2	0.3	18	
Brooks										
Beaver Mines.	0.28	1	26	0.28	16	10.0	3	4.0	11-17	
Coleman.	0.74	2	23	0.62	16	12.5	5	4.0	17	
Cowley.	0.30	2	23	0.10	2-26	8.5	5	2.0	17	
Coldwell.						6.3	3	3.5	11	
Clareholm.	0.11	1	27	0.11	1	6.0	2	5.6	12	
Clarinda.	0.10	1	27	0.10	2	4.0	2	3.0	12	
Dorenee (Bashaw)						0.3	1	0.3	18	
Dunstable (Five Lakes).						2.5	6	1.0	20	
Grassy Lake	0.20	1	28	0.20	2	2.0	1	2.0	11	
Jumping Pound.	0.03	1	26	0.03	2	6.8	3	5.3	18	
Loch Sloy										
Lyndon.						7.6	4	4.0	12	
Lineham.	0.25	1	27	0.25	16	15.3	2	13.0	18	
La Pearl	0.00					0.0				
Lethbridge.	0.06	1	27	0.06	6	1.8	2	1.5	12	
Macleod.										
Mayercroft.	0.41	2	25	0.21	16	9.1	3	6.1	18	
Mountain View	0.11	1	26	0.11	16	5.0	3	3.0	2	
Manville (Royercroft Ranch)	0.00					5	2	*	—	
Nateby										
Nanton.						*	1	*	11	
Okotoks										
Pekisko						16.5	5	6.0	17	
Ponoka						0.5	1	0.5	18	
Seven Persons.										
Tilley.										
Waterton Mills.	1.37	5	20	0.66	17	19.0	5	6.0	18	
SASKATCHEWAN—										
Gull Lake.										
Gull Lake (Fks. Swift Cur.)						1.7	1	1.7	10	
Meadow Lake										
The Meadows (Battle Ck.)										
Willow Creek (Maple Cr.)										
Wapashoe	0.00					0.3	1	0.3	11	
MANITOBA—										
Cartwright	0.37	3	27	0.26	6	*	2	*	15-21	
Deloraine.										
Norquay (Swan Lake).										
Rapid City.	0.27	3	23	0.25	11	7.0	4	5.0	21	
Rose Bank										
ONTARIO—										
Brantford (Bow Park Farm)	3.53	13	12	1.25	9	1.5	5	0.6	10	
Deer Park	3.08	10	23	1.37	9					
Dutton.	0.75	2	27	0.40	8	4.0	1	4.0	8	
Emisdale	3.56	13	15	0.73	20	2.0	2	1.5	10	
Fort Frances										
Georgetown.	3.51	14	16	1.07	19	*	4	*	9-24	
Grantham	3.13	12	18	1.27	10	*	2	*	10-11	
Grand Valley	2.81	9	21	0.90	10					
Hillier										
Maccos	2.75	4	26	0.94	9					
Niagara Falls	2.72	6	24	1.20	10	3.0	1	3.0	9	
Nipigon	2.32	7	20	0.54	29	3.4	3	3.0	8	
Princeton										
Point Clark	1.51	3	25	0.94	19	8.0	2	6.0	10	
Reelfoot										
Sydenham	2.80	4	25	1.10	19	1.0	1	1.0	11	
Strathroy.	2.24	4	21	0.77	18	14.0	2	12.0	9	
Watford	2.37	5	23	0.76	13					
Westport	2.06	3	25	1.10	9	3.8	2	2.0	10	
Westminster.	3.18	4	25	1.26	14	5.0	1	5.0	10	
Wooler.										
Wesley.										
Warton	1.14	4	24	0.90	20	13.0	2	8.0	10	

STATIONS	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
Quebec—										
Bark Lake (Riviere Desert)										
Kipawin Dam										
Lacuna										
Porkins Mills	3 15	5	21	1.50	9	0 6	2	0 4	28	
Quinze Dam	2 23	6	21	0.80	8	10 4	3	8 0	10	
Timiskaming										
Ville Marie										
NEW BRUNSWICK—										
Point Escuminac	1 23	4	25	0.69	10	1 2	1	1 2	26	
NOVA SCOTIA—										
Big Mushamush Lake (Ma- honey)										
Kentville										
Milton	1.50	2	28	1.00	10					
Mushamush River (Mahoney)										
Neppan										
South Alton	1 41	6	23	0.52	11	1.0	1	1.0	26	
White Rock	4.25	—	—	—	—					





FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF NOVEMBER, 1913

STATION	DIRECTION OF WIND FROM									Total num- ber of Observ- ations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	1	1	1	2	4	8	11	2	0	30
Didsbury.....	1	0	2	0	6	10	4	8	0	31
Endiang.....	7	11	2	4	4	0	0	1	0	29
Halkirk (Emsburg).....	2	1	0	11	21	9	6	0	10	60
Hillsdown.....	1	1	0	7	14	9	0	10	18	60
Loveland.....	1	3	1	15	1	20	8	11	0	60
Macleod.....	2	0	2	0	0	1	41	0	14	60
Pakan (Victoria).....										
Ranfurly (Waitefield).....	4	3	6	16	13	8	15	19	16	90
SASKATCHEWAN—										
Chaplin.....	1	1	1	2	10	5	8	1	1	30
Crescent Lake.....	1	2	0	2	10	3	8	3	1	30
Estevan.....	2	2	2	5	6	4	5	3	1	30
Fort Qu'Appelle.....	0	0	18	4	6	6	14	7	5	60
Grenfell (Brownhill).....	1	0	0	2	2	35	6	13	1	60
Indian Head.....	2	1	3	4	8	40	9	23	0	90
Larchmount (Glenbryan).....	1	2	1	5	4	29	5	12	1	60
Moosomin.....										
Muenster (St. Peter's Monastery).....	2	5	3	5	21	11	10	3	0	60
Onion Lake.....	4	2	8	5	1	1	1	8	0	30
Pense (Gatesgarth).....	0	0	0	8	0	9	3	10	0	30
Waseca.....	0	1	2	4	0	3	15	5	0	30
MANITOBA—										
Berens River.....	7	12	5	2	22	3	8	1	0	60
Brandon.....	1	4	5	9	2	16	11	9	20	77
Hillview.....	5	9	6	12	11	13	3	30	1	90
Moose Horn Bay (Aitkensville).....	9	2	4	6	16	4	2	10	5	58
Morden.....	11	1	0	7	9	12	10	4	6	60
Oak Bank.....	5	0	1	1	13	1	3	5	1	30
Stony Mountain.....	8	2	1	7	17	12	9	4	0	60
ONTARIO—										
Agincourt.....	4	13	11	3	8	27	11	13	0	90
Alton.....	7	0	13	2	12	7	49	0	0	90
Beatrice.....	3	0	1	5	13	8	5	13	42	90
Biram.....	4	0	7	8	5	15	5	8	8	60
Clinton.....	3	0	7	3	12	12	8	14	1	60
Cottam.....	9	0	9	7	15	8	11	1	0	60
Gravenhurst.....	2	6	9	20	19	9	11	6	8	90
North Bruce.....	5	4	17	6	29	5	8	16	0	90
Orillia.....	2	2	0	3	10	5	6	2	0	30
Owen Sound.....										
Point Clark.....										
Port Dover.....	2	0	3	0	5	9	9	2	0	30
Stoney Creek.....	2	9	16	1	1	7	39	15	0	90
Uplands.....										
Wexford.....	0	2	6	1	0	10	2	5	4	30
QUEBEC—										
Abitibi.....	19	1	5	5	29	12	11	8	0	90
Anticosti, W. Pt.....	12	5	8	4	16	7	18	20	0	90
Anticosti, Heath Point.....	10	9	5	3	4	18	14	24	3	90
Bicquet.....	6	21	0	0	22	6	19	12	4	90
Brome.....	11	0	4	0	19	6	44	2	4	90
Cape Chatte.....	4	3	3	0	2	7	37	13	21	90
Cape Magdalen.....	7	2	4	4	16	11	7	31	8	90
Cap Rouge.....	2	4	0	0	0	2	0	22	0	30
Chicoutimi.....	2	10	5	2	0	8	15	7	41	90
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	1	0	7	1	0	2	14	3	1	29
Moncton.....	2	3	4	2	0	1	3	15	0	30
Pt. Lepreaux.....	4	12	0	5	4	14	14	22	0	75
Sussex.....	0	1	0	1	0	6	1	6	15	30
NOVA SCOTIA—										
Kentville.....	2	2	4	2	3	4	8	5	0	30
Parrsboro.....										
Port Hastings.....										
Sable Island, E. Pt.....										
Truro.....	8	10	4	3	9	22	15	15	4	90
Whitehead.....	13	13	6	2	4	35	5	12	0	90

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
NOVEMBER 1913.

STATION.	HOURS ENDING											
	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.
Shawnigan Lake.....					T	.11	2	.93	92	92	25	27
Victoria.....					.01	.06	.18	.28	.34	.33	28	25
Simon Arm.....					.01	.06	.12	.23	.27	23	29	32
Nasaimo.....												
Vancouver.....					.01	.06	.19	.31	.37	2	30	28
Agassiz.....					.05	.13	.21	.21	.20	20	20	.11
Trasquille.....					.01	.16	.41	.41	.53	49	49	.37
Summerland.....					.07	.29	.39	.34	.59	.34	41	.34
Kamloops.....					T	.17	.32	.46	.48	.55	53	47
Harper's Ranch.....												
Invermere.....						.01	.11	.22	.45	.45	.38	53
Edmonton.....					.02	.29	.40	.39	.45	.42	44	.46
Lethbridge.....					.02	.21	.34	43	.55	.65	60	60
Lacombe.....					.05	.32	.52	.65	.75	.71	77	.66
Medicine Hat.....					.02	.21	.36	.45	.41	.42	46	.29
Fort Dunvegan.....							.03	.21	.34	.41	46	.31
Fort Vermilion.....												
Battleford.....												
Indian Head.....						.10	.27	.45	.46	.53	50	.53
Moos Jaw.....					.06	.38	.50	.54	.55	.61	.59	.58
Scott.....				.05	.21	.30	.45	.58	.58	.58	.50	.34
Rosthern.....					.04	.26	.34	.35	.44	.53	55	49
Brandon.....					.03	.27	.46	.55	.56	.51	.35	.27
Winnipeg.....					.01	.16	.27	.39	.43	.53	.56	.54
Halleybury.....					.02	.10	.14	.11	.15	.14	.17	.17
Woodstock.....					.03	.25	.42	.38	.41	.42	.39	.37
Lindsay.....						.06	.30	.33	.36	.40	.41	.41
Berrie.....					.09	.21	.24	.31	.36	.41	.41	.31
Toronto.....					.03	.22	.31	.39	.43	.37	.44	.36
Kingston.....				T	.09	.33	.29	.41	.43	.46	.44	.42
Ottawa.....					.09	.26	.44	.49	.47	.46	.45	.43
Montreal.....												
Cap Rouge.....					.02	.18	.25	.31	.33	.26	.25	.25
Quebec.....					.03	.28	.32	.44	.45	.35	.31	.31
Ste. Anna de la Pocatiere.....				.03	.25	.32	.34	.49	.44	.39	.42	.30
Sherbrooke.....												
Fredericton.....					.05	.36	.38	.47	.47	.42	.41	.43
Charlottetown.....					.06	.24	.39	.35	.28	.29	.31	.27
Napan.....						.29	.57	.58	.56	.49	.39	.44
Wolfville.....					.08	.33	.42	.51	.53	.54	.52	.52
Keewille.....					.05	.23	.41	.28	.55	.54	.49	.46

## SUMMARY OF SUNSHINE RECORDS

NOV., 1913	Shawinigan Lake	Victoria	Salmon Arm.	Nanaimo.	Vancouver.	Agassiz.	Tranquille.	Summitland.	Kamloops.	Harper's Ranch.	Invermere.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Fort Vermilion.	Indian Head.	Moose Jaw.	Scott.	Brother.	Brandon.	Winnipeg.	Halifax.	Woodstock.	Timber.	Partie.	Toronto.	Kingston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	St. Anne de la Pointe.	Shedden.	Fredericton.	Charlottetown.	Napan.	Wolville.	Kenville.	
Registered duration in hours.....	61	57	49	...	62	40	65	79	92	...	61	93	121	146	92	53	...	...	99	126	109	102	84	105	38	90	80	73	85	97	107	...	61	84	90	...	107	75	116	115	112
Percentage of possible duration....	22	20	18	...	21	15	56	99	34	...	23	36	45	55	34	22	...	...	37	47	41	39	35	38	14	31	28	24	29	34	58	...	22	30	32	...	38	27	41	41	39
Difference from average.....	—	—	—	...	—	—	—	—	—	...	—	—	—	—	—	—	...	+11	—	—	—	—	+0	+5	—	+5	+3	+4	+0	+10	...	—	+6	—	—	+5	—	—	—	—	
Maximum percentage in one day....	75	79	70	...	80	83	91	85	74	...	64	91	96	95	86	55	...	81	87	92	97	82	90	94	88	76	81	88	87	94	...	88	91	89	...	95	88	88	93	91	
Date of maximum....	1	2	28	...	16	11	11	12	10	...	18	2	3	2	30	22	...	27	13	...	8	4	3	5	5	1	5	5	1	6	5	...	16	16	16	...	16	8	10	2	2
Number of days completely clouded.....	11	10	12	...	12	21	4	7	7	...	11	5	2	3	9	16	...	4	4	5	10	6	7	14	9	13	10	11	10	8	...	8	7	5	...	6	12	4	...	2	

*Thunder recorded:*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
7. Haliburton, Listowel, Cottam, Lucknow, Goderich, Clinton, Birnam, Montreal River.
8. Haliburton, Parry Sound.
9. Madoc, Haliburton, Montague.
10. Liverpool, Almonte, Ottawa.
11. Almasippi.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
22. Brantford (Bow Park), Lakefield, Cottam, Birnam, Rutherglen, Stonecliffe, Parry Sound, Peace River Crossing.
23. Causapseal, Haliburton, Rutherglen.
- 24.
- 25.
26. Alburni.
- 27.
- 28.
- 29.
- 30.

*Auroras recorded:*

1. Mistassini III, Aweme II, Edmonton, Anglia, Crescent Lake IV, Halkirk, Ranfurly II, Sion IV, Hillsdown IV, Beaver Lodge III, Peace River Crossing.
2. Advocate, Causapsca, Mistassini III, Rutherglen IV, Aweme III, Crescent Lake IV, Pambrum, Ranfurly IV, Sion IV, Hillsdown III, Beaver Lodge.
3. Sion III.
4. Anglia, Sion IV.
5. Cartwright IV, Causapsca, Beaver Lodge.
- 6.
- 7.
8. Ranfurly IV.
9. Chicoutimi.
- 10.
11. Cartwright IV.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
18. Mistassini IV.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
25. Brazeau Forest.
- 26.
27. Mistassini III, White Shore Lake IV, Aweme IV, Anglia, Muenster III, Atlin.
- 28.
29. Muenster IV.
- 30.

## FORECASTS FOR NOVEMBER 1913

The forecasts issued by this office at 11 p.m. each night, are for the 24 hours beginning at 8 a.m. the following day; and are published in most morning newspapers.

The number of these predictions issued during the month was 1264. These were divided as follows:

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	75	52	15	8	79.3
Saskatchewan.....	75	54	16	5	82.6
Manitoba.....	75	54	15	6	82.0
Lake Superior.....	123	87	29	7	82.5
Lower Lake Region.....	118	82	31	5	82.6
Georgian Bay.....	119	87	27	5	84.5
Ottawa Valley.....	99	72	19	8	82.3
Upper St. Lawrence.....	99	72	20	7	82.8
Lower St. Lawrence.....	119	80	29	10	79.4
Gulf.....	122	91	24	7	84.4
Maritime Provinces West.....	120	94	18	8	85.8
Maritime Provinces East.....	120	91	22	7	85.0
Total.....	1264	916	265	83	82.9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,  
Dec. 30th, 1913.





DEPARTMENT OF MARINE AND FISHERIES, CANADA.  
METEOROLOGICAL SERVICE.

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# Monthly Weather Review

VOL. XXXVII.

DECEMBER, 1913

No. 12

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## INTRODUCTION.

In compiling the present Review, the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm-signal agents. For the data used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

## HIGH AREAS.

Seven areas of high pressure were charted. One first appeared near the Yukon Territory, three near Northern Manitoba, and three on the coast line of the Northern Pacific States. The areas for the most part lacked energy and, irrespective of the systems from Northern Manitoba which passed well to the northward of the Great Lakes into the St. Lawrence Valley and the Gulf and brought some cold spells to northern and eastern Ontario, Quebec and the Maritime Provinces, the areas were not marked by any accompanying very low temperatures.

## LOW AREAS.

Twelve areas of low pressure were sufficiently well defined to allow of their paths being charted. Six first appeared in the far northwestern portion of the continent, one in the West, and one in the South Pacific States respectively, three on the east coast of Texas, and one near Bermuda. Four areas passed far to the northward, three over, and the remainder to the southward of the Great Lakes. A few only of the systems were of any great energy, the majority being feeble for the season of the year. As a consequence the number of high winds and gales occurring in Canada, were not as numerous as they usually are in December.

## ATMOSPHERIC PRESSURE.

The results obtained at the telegraph reporting stations in December indicate that the mean value of the atmospheric pressure was subnormal on the Atlantic and Pacific Coasts, that the normal was reached in Western Alberta and the Georgian Bay region of Ontario, and exceeded in the region lying between. The greatest mean pressure was over Manitoba where the average was exceeded by about 0.1 of an inch, and the Maritime Provinces where negative departures were from 0.06 to 0.1 of an inch.

## GENERAL SYNOPSIS OF TEMPERATURE AND PRECIPITATION.

The following table is intended to show the average values of temperature and precipitation for each province for the month under review. District and Provincial means would, under ideal conditions, be derived from stations situated in equi-areal squares. But since in reality they are so situated as to appear, rather, constellation-wise upon the map, anomalous values arising from local topographical peculiarities may have received more than their just weight in the computation of the following averages.

Where no difference from normal is assigned, observations over a period long enough for reference are not available.

PROVINCE AND DISTRICT.	TEMPERATURE (FAHR.).						PRECIPITATION.			STATION DIFFERENCES FROM NORMAL TEMPERATURE	
	Mean Daily.	Mean Daily Maximum.	Mean Daily Minimum.	Mean Daily Range.	Extreme Highest.	Extreme Lowest.	Total in Inches.	Difference from Normal.	Number of Days.		Greatest Fall.
BRITISH COLUMBIA—											
South Vancouver Island	44	44	35	9	55	24	3.65	-25%	17	2.80	-1° to +2°
North Vancouver Island	43	47	39	8	58	25	15.00		24	3.25	
Lower Fraser River	38	42	23	9	51	14	3.20	-60%	14	0.98	0° to +2°
Upper Fraser River	29	33	20	13	53	-8	1.35	-50%	5	2.00	+2° to +5°
Okanagan Valley	39	44	23	11	45	0	0.50	-50%	4	0.55	+0° 5' to +2°
West Kootenay	28	32	23	9	42	3	0.75		6	0.75	Very small
East Kootenay	21	27	15	12	42	-6	0.44		2	0.60	-3° at Elk
Thompson River	30	35	23	10	48	8	0.66	-60%	4	0.55	+1° to +2°
North Columbia River	21	26	16	10	40	-11	0.50	-45%	7	1.65	+1° to +2°
North Coast	31	38	30	8	63	15	12.40		14	4.42	+3° at Bella Co. Ja
Queen Charlotte Islands	41	46	37	9	54	30	20.85		26	4.40	+0° 5
ALBERTA											
North Saskatchewan River	20	31	9	22	60	-18	0.10	-	2	0.14	+3° 7 at Edmonton
The Red Deer River	21	32	9	23	64	-18	0.03	-	1	0.10	+4° to +7°
The Bow River	26	35	14	24	59	-13	0.18	-80%	1	0.61	+3° to +5°
Atabasca River	19	29	9	20	51	-18	0.11		3	0.05	+7°
Peace River	16	25	7	18	57	-21	0.38		2	0.40	
SASKATCHEWAN—											
Qu'Appelle River	18	28	8	20	55	-22	0.04	-65%	1	0.20	+7° to +12°
S. Saskatchewan River	21	33	9	24	58	-12	0.01	-35%	1	0.04	+6° to +8°
N. Saskatchewan River	16	26	6	20	46	-25	0.11		1	0.20	+12°
Saskatchewan Forks	15	24	6	18	45	-24	0.00		1	0.10	+8° to +10°
Lower Saskatchewan River	13	21	4	17	35	-27	T		T		
MANITOBA—											
Qu'Appelle and Assiniboine Rivers	19	29	9	20	51	-23	0.07		2	0.10	+7° to +13°
The Red River	20	30	10	20	54	-20	0.19		1	0.30	+9° to +12°
Dauphin Lake and River	21	30	10	21	46	-16	0.01		1	0.01	-
ONTARIO—											
Lake Superior Districts—											
Isling River	17	22	11	10	41	-17	0.05		1	0.05	+7° 6 at Kenora
Thunder Bay	21	35	13	22	53	-15	0.51	-90%	3	0.50	+11° at Port Arthur
Ungava	21	29	12	17	52	-34	0.90	-75%	5	0.65	+6°
Nipissing	18	25	8	19	46	-27	1.67		10	0.71	+8° at Haileybury
Upper Ottawa River	22	30	14	16	44	-16	1.30	-45%	13	0.30	+8° to +10°
Upper St. Lawrence and Ottawa Rivers	27	34	21	13	50	-10	1.38	-35%	7	0.80	+6° to +7° 5
Georgian Bay Counties	21	36	21	15	55	-13	0.96	-80%	5	0.60	+6° to +9°
Lake Huron Counties	31	37	26	11	55	-5	0.95	-75%	7	0.58	+4° to +7°
Lakes St. Clair & Erie, Niagara Peninsula	34	40	28	12	55	0	0.65	-70%	4	0.60	+4° to +5°
West Central Counties	29	36	23	13	53	-12	0.53	-80%	4	0.40	+1° to +7°
Lake Ontario Counties	31	37	25	12	54	-10	0.72	-60%	4	0.82	+6° to +8°
East Central Counties	27	35	19	16	59	-19	0.90	-65%	4	0.90	+6° to +10°
QUEBEC—											
Middle St. Lawrence	24	29	16	13	44	-22	2.55		10	1.20	+6° to +7°
Lower St. Lawrence & Gulf	19	26	11	15	46	-20	2.05		9	1.80	+4° to +7°
Lake St. John	1	25	10	15	42	-12	1.55		4	0.60	
Northwestern Districts	18	27	9	18	52	-30	1.20		6	0.70	+9° at Abitibi
NEW BRUNSWICK—											
All Stations	25	32	17	15	55	-14	2.80	-15%	9	1.50	+4° to +8°
NOVA SCOTIA—											
All Stations	29	36	22	11	58	-1	4.64	-10%	12	1.86	+1° to +3°
PRINCE EDWARD ISLAND—											
All Stations	28	34	22	12	56	10	3.23	-25%	17	0.84	+3°

## FREE AIR DATA

## REGISTERING BALLOON ASCENT AT WOODSTOCK.

(Lat. 43° 8' N., Long. 80° 47' W.) on December 4th, 1913.

Instrument—Dines Meteorograph.

Fell 169 km. distant S.40 E.

Beginning of Ascent—1 a.m. G.M.T.

Maximum Height 10.6 km.

Barometer—738 mm.

Minimum Temperature —51.5 C.

Temperature = 2.5 C.

Direction of flight at Beginning—South-East.

Height in km. above S.L.	Pressure in mm.	Temperature in Centigrade degrees	
G.L. = 0.3	738	2.5	
0.5	719	2.0	
0.9	683	2.0	0.5
1.0	675	3.0	1.2
1.15	664	4.5	2.5
1.5	634	4.0	2.0
1.7	618	4.0	2.0
1.8	612	3.0	
2.0	596	2.5	
2.5	559	1.5	
3.0	524	0.0	— 2.0
3.5	493	— 3.0	— 5.0
4.0	463	— 5.5	— 8.7
4.5	433	— 8.7	— 11.8
5.0	406	— 12.0	— 15.0
5.5	380	— 15.5	— 18.0
6.0	356	— 18.5	— 21.0
6.5	332	— 22.5	— 24.5
7.0	310	— 26.5	— 28.5
7.5	288	— 31.0	— 33.5
8.0	268	— 35.0	— 37.0
8.5	249	— 39.0	— 40.0
9.0	232	— 41.0	— 42.5
9.5	214	— 44.5	— 45.5
10.0	200	— 47.5	— 49.0
10.3	190	— 51.5	
10.6	181	— 50.5	

An area of low pressure was centred southeast of Newfoundland, while the barometer was high over almost the whole of the United States, giving fine and mild weather in Ontario.

## WINDS, DECEMBER, 1913

PROVINCES AND STATIONS.	Total Mileage.	Greatest Mileage in 24 hours.	Greatest Mileage in 1 Hour			Number of Days of			GENERAL DIRECTION
			Miles	Direction	Date	Gales	Strong Winds	Fresh Winds	
BRITISH COLUMBIA.									
Atlin.....	8161	500							NE
Prince Rupert.....									
Victoria.....	4783	347	27	E	30		6	8	E
Point Garry.....	4922	354	32			1	4	9	E
Vancouver.....									
Kamloops.....									E
ALBERTA.									
Edmonton.....	*2522	176	13	SE	13			1	SW
Calgary.....	3381	194	22	NW	7		3	12	NW
SASKATCHEWAN.									
Battleford.....									SE
Prince Albert.....	2791	189	18	S	8			4	SW
Swift Current.....	7200	414							SW
Qu'Appelle.....	7689	527	31	NW	7	1	7	18	SW
MANITOBA.									
The Pas.....									
Winnipeg.....	6697	531	32	NW	6	1	7	16	SE, NW
ONTARIO.									
Port Arthur.....	6397	504	37	NW	6	2	4	17	NW
White River.....	4117	345	22	N	7		1	13	W, N
Cochrane.....	5272	432	26	NW	14		4	12	S, SW
Parry Sound.....	7105	355	23	W	9			17	SW, NW
Souhampton.....	10786	799	49	NW	8	4	17	8	SW
Pelée Island.....	10984	1094	53	W	8	6	19	10	
Woodstock.....	88113	543	28	NW	4		17	7	NW
Geolph.....	9090	453							NW
Toronto.....	10411	621	40	NW	8	4	20	6	W
Kingston.....	6604	397							SW
Stoneycliffe.....	3724	119	19	W	8		1	6	W
Ottawa.....									W
QUEBEC.									
Montreal.....	10630	566							NW
Sherbrooke.....									
Quebec.....	9438	705	41	NE	26	4	15	9	SW
Father Point.....	10932	619	42	N	8	5	17	4	N
Anticosti, SW.									
Harrington.....									
NEW BRUNSWICK									
Pt. Escominac.....	13217	998	56	NW	8	18	5	7	NW
Fredericton.....	5710	379	34	NW	8	1	7	15	NW
St. John.....	10053	816	52	SW	8	5	14	7	NW
Pt. Lepreaux.....	13388	954	61	SW	8	16	11	2	NW
NOVA SCOTIA									
Yarmouth.....	9910	826	58	SW	8	4	16	8	NW
Wolfville.....									
Halifax.....	9394	852	51	SW	8	4	13	10	NE
Sable Island.....									
Flat Point.....	13737	798	48	NE	27	17	7	6	N
PRINCE EDWARD ISLAND									
Charlottetown.....	6585	493	27	SW, NE	8-27		9	14	NW

\* Record for 26 days only.    § Record for 29 days only.    Record for 30 days only.

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA. DECEMBER

\*Stations not furnished with Registering Thermometers

STATION	Latitude N	Longitude W	Elevation above sea level, in feet	TEMPERATURE.					PRECIPITATION.				
				Mean	Difference from average	Year's Observation	Highest	Lowest	Days	Mo. or less than 1 mm.	Average	Difference from average	Days or less than 1 mm.
BRITISH COLUMBIA—													
S. Vancouver Island													
Alert Beaver Creek	48 10	124 49	300	1.7	—	18	47	—	—	—	—	—	—
Clayoquot	49 11	123 55	27	1.1	—	15	45	—	—	—	—	—	—
Clooose	49 4	124 30	—	1.4	—	14	44	—	—	—	—	—	—
Cobble Hill	48 37	123 42	170	—	—	13	43	—	—	—	—	—	—
Cowichan (Tzouhalem)	49 00	124 0	—	—	—	12	42	—	—	—	—	—	—
Departure Bay	49 00	124 0	—	—	—	11	41	—	—	—	—	—	—
Gillis Bay	48 55	124 2	—	—	—	10	40	—	—	—	—	—	—
Ladysmith	48 55	123 39	—	—	—	9	39	—	—	—	—	—	—
Nanaimo	49 05	124 46	135	—	—	8	38	—	—	—	—	—	—
Nanose Bay	49 17	124 12	130	—	—	7	37	—	—	—	—	—	—
Qualicum Beach	48 55	123 2	—	—	—	6	36	—	—	—	—	—	—
Salt Spring Island	48 37	123 41	—	—	—	5	35	—	—	—	—	—	—
Shawigan Lake	48 41	123 44	25	—	—	4	34	—	—	—	—	—	—
Sooke	48 24	123 19	85	—	—	3	33	—	—	—	—	—	—
Victoria	48 24	123 19	42 8	—	—	2	32	—	—	—	—	—	—
N. Vancouver Island													
Alert Bay	50 00	127 0	43 2	—	—	1	31	—	—	—	—	—	—
Holberg	50 00	125 15	—	—	—	0	30	—	—	—	—	—	—
Quatsino	50 00	127 40	—	—	—	0	29	—	—	—	—	—	—
Triangle Island	50 00	129 5	60 0	—	—	0	28	—	—	—	—	—	—
Lower Fraser River													
Agassiz	49 4	121 31	32	40 2	— 1 8	86	5 15	29 5	—	—	— 4 5	—	—
Britannia Beach	49 0	121 5	105	—	—	75	—	—	—	—	—	—	—
Chilliwack	49 0	121 57	21	—	—	64	—	—	—	—	—	—	—
Hope	49 27	121 55	300	—	—	53	—	—	—	—	—	—	—
Ladner	49 07	122 4	—	—	—	42	—	—	—	—	—	—	—
New Westminster	49 07	122 54	33	—	—	31	—	—	—	—	—	—	—
North Nicomen	49 27	122 2	59	—	—	20	—	—	—	—	—	—	—
Pemberton Hatchery	50 25	122 37	—	—	—	9	43 0	4 10	—	—	—	—	—
Pemberton Meadows	50 25	122 41	—	—	—	0	43 0	2 6	7 4	—	—	—	—
Ruskin (Slave Falls)	49 19	122 23	125	—	—	8	48 4	8 8	—	—	—	—	—
Steveston (Garry Point)	49 21	123 17	—	5 4	—	15	47 0	13 15	21	—	—	—	—
Vancouver	49 17	123 5	136	4 0	— 1 2	10	48 1	20 26 8	21 9 7	—	—	—	—
Upper Fraser River													
Babine Lake	55 38	126 25	—	22 4	—	5	41 0	2 5	25	8 5	—	—	—
Barkerville	53 02	121 35	4180	24 4	— 1 8	40	44 0	4 5	—	—	— 15 0	—	—
Chilcoot (Big Creek)	53 44	119 0	3160	2 9	— 7 0	10	47 0	1 8	—	—	— 05 0	—	—
Fifteen Mile Ranch Pavilion	50 43	120 53	—	31 4	—	0	51 5	5	11 5	15 2	—	—	—
Fort George	—	—	—	—	—	—	—	—	—	—	—	—	—
Fort St. James (Stuarts Lake)	54 28	124 12	2280	—	—	—	—	—	—	—	—	—	—
Hydraulic	52 42	122 5	—	31 4	—	5	48 0	8	11	25 14 4	—	—	—
Queensgate	52 50	122 30	1700	28 5	— 4 6	18	49 0	5 7	6	24 19 7	— 0 42	— 0 35	2 19
Kanagan Valley													
Duck Lake Ranch	5 3	3 119 20	1400	31 3	—	—	42	2 9	8	24 8 5	— 5	—	0 8
Hedley	5 35	120 10	1771	31	— 2 0	10	45 0	16	22	10 9	— 5	— 44	0 47
Hedley (Nickel Plate)	—	—	—	—	—	—	—	—	—	—	—	—	—
Keremeos	49 15	120 0	1372	32 7	—	5	47 5	12	2	21 7	—	—	0 20
Kelowna (Okanagan Mission)	49 15	119 29	1200	31 7	— 0 4	14	42 0	1 14	—	—	—	—	0 13
Pentstemon	49 29	119 35	—	31 3	—	7	44 0	1	20	10 8	— 0 5	—	0 24
Princeton	49 29	120 29	1059	21 0	— 1 8	19	38 0	1	20	22 4 15 8	— 0 00	— 0 85	0 25
Riceland	49 28	118 35	—	25 2	—	1	45 0	14	10	23 24 17 8	— 0 04	—	0 31
Summerland	49 36	119 40	1100	24 6	—	7	42 0	14	17	1 0 0	—	—	0 27
Vernon (Coldstream Ranch)	5 34	119 15	1582	25 7	— 0 5	18	43 0	7 14	11	4 1	— 0 19	— 0 83	0 4
West Kootenay													
Crawford Bay	49 45	116 45	2000	23 6	—	4	41 0	12	11	—	—	—	0 45
Creston	49 6	116 3	1985	27 2	—	8	43 0	1	19	21 7	—	—	0 47
Grand Forks	49 2	118 27	1746	28 3	—	4	48 0	1	19	—	—	—	0 2
Greenwood	49 1	118 6	2400	20 5	—	2	41 0	22	—	—	—	—	0 27
Howser	49 18	117 0	—	21 7	—	2	42 0	1	20	—	—	—	0 28
Kaslo	49 53	117 0	1532	27 8	—	8	48 0	13 14	—	—	—	—	0 28
Nakusp	50 14	117 4	—	27 8	—	2	40 0	13 17	—	—	—	—	0 28
Nelson	49 29	117 21	1720	20 7	— 0 4	10	44 0	13	17	—	—	—	0 27
Perry d'Oreille (Waneia)	49 6	117 48	—	26 6	—	1	41 0	2	19	—	—	—	0 4
Perry Siding	49 6	117 48	—	28 7	—	1	42 0	1	19	—	—	—	0 4
Rossland	49 5	117 45	2440	29 6	— 1	10	46 0	12	15 5	24 5 4 8	— 0 2	— 2 10	0 7 24
East Kootenay													
Canbrook	49 50	115 50	—	21 4	—	7	41 0	15 16	—	—	—	—	0 7
Elko (Fruitlands)	49 1	115 5	2684	24 4	— 1	18	42 0	8 10	4	23 4	— 0 0	— 1 7	0 1
Invermere	50 50	116 2	2620	19 0	—	4	40 0	17	6 0	—	—	—	0 28
Wilmer	50 74	116 14	38 0	19 9	—	5	40 0	1	40	21 11 9	—	—	0 27
Thompson River													
Armstrong	50 26	111 11	—	25 0	—	1	48 0	15	8 0	29 11 0	—	—	0 28
Ashcroft	—	—	—	—	—	—	—	—	—	—	—	—	—
Enderby	50 2	119 7	1180	28 8	— 0 0	13	45 0	16	10	20 0	—	—	0 47
Harper's Ranch	50 41	120 29	1245	—	—	—	—	—	—	—	—	—	—
Kamloops	50 4	120 30	2120	52 4	— 1 0	23	43 1	34	1 8	1 0 8 4	—	— 0 36	0 21
Monte Creek	50 35	119 50	—	—	—	—	—	—	—	—	—	—	—
Nicola Lake	50 8	120 39	2120	29 4	— 2 2	18	48 0	16	—	—	—	—	0 27
Nicola Lake	50 42	119 35	1152	27 7	— 1 0	13	42 0	1	20	—	—	—	0 27
Salmon Arm	50 4	120 39	—	30 4	—	—	—	—	—	—	—	—	—
Salmon Arm (Exp Farm)	—	—	—	31 6	—	1	44 0	7 00	3 0	—	—	—	0 26
Tappen	49 48	120 29	—	32 0	—	—	—	—	—	—	—	—	—
Tranquille	50 48	119 45	1150	27 6	—	1	45 0	17	8 0	—	—	—	0 27
Vancouver	51 7	119 45	1150	27 6	—	1	45 0	17	8 0	—	—	—	0 27
North Columbia River													
Faugher	49 14	118 6	—	16 7	— 1 7	11	36 0	—	—	—	—	—	—
Glacier	51 4	117 29	4072	16 7	— 0 0	13	38 0	13 14	—	—	—	—	0 28
Golden	51 0	118 8	1476	19 7	— 0 0	14	40 0	16 17	—	—	—	—	0 28
Revelstoke	51 16	116 5	2550	23 1	— 1 5	14	40 0	16 17	—	—	—	—	0 24



STATION.	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION				Other Data				
				Mean.	Difference from average.	Yr's Observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Heaviest fall in month.	Days with 0.1 or more.	No. of fair days.	No. of aurora.	No. of thunderstorms.
<b>BRITISH COLUMBIA—CON.</b>																		
<i>North Coast</i>																		
Beila Coola.....	52	40	126 54	150	34.2	+ 3.0	15	47.0	7	20.0	25-26	6.4	6.99	+1.45	1.26	15	16	..
Prince Rupert.....	54	18	130 18	170	41.3	—	3	53.0	6	18.0	18-19	11.2	10.08	—	4.43	13	..	
Stewart.....	56	1	130 1	215	27.4	—	3	37.0	6	15.0	20-21	5.9	11.42	—	4.20	13	..	
Terrace.....	54	30	128 30	545	31.5	—	2	45.0	3	15.0	21-28	7.7	11.87	—	2.18	10	21	
<i>Queen Charlotte Islands</i>																		
Ikeda Bay.....	52	17	131 7	5	42.9	—	6	54.0	1	34.0	5-18	7.0	32.35	—	4.46	26	5	..
Masset.....	53	68	132 9	10	39.9	+ 0.5	16	53.0	3	30.0	5-12	11.7	9.36	+2.70	1.20	27	4	..
<i>Fukon Boundary</i>																		
Atlin.....	50	35	133 38	2240	20.3	—	8	37.5	9	0.0	17-18	10.1	3.10	—	0.65	14	17	1
<b>FUKON—</b>																		
Carcross.....	60	11	134 34	2171	17.1	—	7	38.0	10-19	-16.0	17	11.3	1.60	—	0.50	6	25	..
Dawson.....	64	4	139 29	1200	-7.6	+ 5.8	12	30.0	1	-38.0	17	14.3	1.45	+0.30	0.93	5	26	..
<b>ALBERTA—</b>																		
<i>N. Saskatchewan River</i>																		
Campsie.....	54	8	114 42	.....	17.5	—	2	53.4	10	-14.8	25	24.2	0.33	—	0.14	3	28	1
Coronation.....	55	52	112 17	.....	20.2	—	6	70.0	10	-14.0	25	21.8	0.03	—	0.65	1	30	..
Dayland.....	53	33	113 30	2165	22.5	+ 3.7	31	60.0	10	-12.5	24-28	19.6	0.18	-0.62	0.07	4	27	..
Edmonton.....	52	0	112 0	2758	20.3	—	3	50.0	11	-12.0	25	23.0	0.00	—	0.60	0	31	..
Edmonton (Emsburg).....	52	0	112 10	.....	19.4	—	7	49.0	11	-13.0	25	21.7	T	—	T	0	31	1
Halkirk.....	52	17	112 10	.....	21.9	—	4	52.0	10	-7.0	20	20.3	T	—	T	0	31	..
Lloydminster.....	52	30	111 59	.....	19.3	—	9	55.2	4	-18.0	24	22.0	0.16	-0.68	0.03	5	26	..
Ranfurly (Waste-field).....	53	29	111 39	2000	19.3	—	1	55.0	10	-12.0	24	22.6	0.08	—	0.05	2	29	..
Redgewick.....	52	47	111 31	.....	17.1	—	2	54.0	10	-12.0	24	25.0	0.25	—	0.10	6	25	..
Sion.....	53	54	114 15	.....	17.1	—	1	44.5	4	-14.5	25	21.8	0.04	—	0.64	1	30	..
Vermilion.....	51	39	110 50	.....	15.1	—	1	42.0	5	-12.0	25	21.9	0.00	—	0.10	0	31	..
Wainina.....	51	39	111 3	.....	22.3	—	9	57.0	11	-10.0	24	24.4	0.01	-0.73	0.01	1	31	..
Wetaskiwin.....	52	58	113 23	2480	22.3</													

## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DEC., 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	TEMPERATURE						PRECIPITATION								
				Mean.	Difference from average.	Yr's observations.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Amount.	Difference from average.	Haviest fall in month.	Days with 01 or more No. of fair days.	No. of Auroras.	No. of thunderstorms.	No. of fogs.
SASKATCHEWAN—																		
Qu'Appelle River																		
Broadview .....	51° 24'	102° 33'	1970	16.4	-10.0	23	48.0	11—29	-29	25	13.7	8	-0.73	8	0 31	...	...	...
Brownhill (Grenfell P.O.) .....	50° 59'	102° 53'	1387	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Buchanan .....	50° 59'	102° 25'	1058	16.5	-11.0	30	41.7	12—13	-13	24	10.9	0.02	-1.6	0.01	2 29	...	3	...
Crescent Lake .....	50° 59'	103° 4	1858	17.4	+7.1	11	49.0	5—6	-6	12	12.8	0.03	-0.78	0.03	0 31	...	...	...
Estevan .....	50° 47'	103° 47'	...	21.0	-	2	55.8	11—12	-12	35	24.5	0.12	-	0.05	1 30	...	...	...
Fort Qu'Appelle .....	51° 5	103° 24'	...	17.2	-	6	43.0	4—13	-13	24	25.7	0.20	-	0.20	1 30	...	...	...
Hubbard (Drumague) .....	51° 5	105° 9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Humboldt .....	51° 5	105° 9	...	17.4	-	3	51.0	10—12	-12	21	22.9	0.10	-	0.01	0 31	...	...	...
Imperial .....	52° 12	105° 23	...	17.1	-9.5	11	43.0	11—12	-12	25	18.3	0.05	-0.66	0.05	1 30	...	...	...
Indian Head .....	51° 30	103° 40	1924	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kamsack .....	51° 30	101° 52	...	23.1	-12.3	3	54.0	10—11	-11	24	23.9	0.05	-	0.05	1 30	...	...	...
Moose Jaw .....	50° 21	105° 35	1750	16.6	+10.5	12	41.0	10—11	-11	23	18.9	...	-	...	0 31	...	...	...
Moosest (St. Peter's Mon.) .....	52° 1	105° 0	1870	17.1	-	3	57.0	8—10	-10	24	17.0	...	-	...	0 31	...	...	...
Pilot .....	52° 27	105° 9	...	15.0	-	3	58.0	12—22	-22	24	20.0	0.03	-	0.02	2 29	...	...	...
Pense (Gatesgarth) .....	50° 20	105° 0	1879	20.9	-11.6	26	53.0	11—8	-8	20	22.2	0.00	-0.41	0.00	0 31	...	...	...
Qu'Appelle .....	50° 30	103° 47	2115	22.1	-10.3	29	46.0	11—9	-9	27	17.1	0.14	-0.57	0.12	3 28	...	...	...
Regina .....	50° 27	104° 37	1853	18.4	+12.0	24	48.0	11—15	-15	25	21.6	0.10	-0.51	0.03	4 27	...	...	...
Strongfield .....	50° 27	104° 37	1853	18.4	+12.0	24	48.0	11—15	-15	25	21.6	0.10	-0.51	0.03	4 27	...	...	...
Yarbo (Fairfield) .....	50° 38	102° 4	...	15.6	-	7	40.5	10—10	-10	15	21.4	...	-	...	0 31	...	...	...
Yellow Grass .....	49° 4	104° 9	...	15.4	-	3	41.0	10—11	-11	24	25.3	0.00	-	0.06	0 31	...	...	...
Yorkton .....	51° 19	102° 29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
S. Saskatchewan River																		
Chaplin .....	50° 26	106° 39	22.2	19.3	+7.8	29	53.0	11—7	-7	19	20.1	0.02	-0.49	0.02	1 30	...	...	1
Kindersey .....	51° 28	109° 9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kintonel (Divide) .....	...	...	3500	25.0	-	4	57.8	9—28	-28	25	24.6	8	-	8	0 31	...	4	...
Kelvinhurst (Nashlyn) .....	51° 40	105° 10	...	...	...	...	...	...	...	...	...	...	...	...	9 31	...	3	...
Larchmont (Glenbryan) .....	49° 21	109° 29	2201	20.1	-	3	53.0	11—14	-14	25	3.6	8	-	8	0 31	...	...	...
Rathmullen .....	51° 26	109° 57	...	17.6	-	4	43.0	11—6	-6	25	19.9	...	-	...	0 31	...	...	...
Swift Current .....	50° 29	107° 45	2429	23.3	+5.9	27	52.0	5—9	-9	24	24.5	0.04	-0.68	0.04	1 30	...	...	1
N. Saskatchewan River																		
Anglia .....	51° 55	101° 10	...	16.6	-	1	41.0	11—15	-15	25	21.9	0.00	-	0.00	0 31	3	...	...
Battleford .....	52° 41	105° 20	1621	19.2	-11.7	23	46.0	3—10	-10	25	18.4	8	-0.39	8	0 30	...	...	...
Lloydminster .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Luseland .....	52° 5	104° 24	...	17.7	-	3	43.0	4—16	-16	24	17.4	0.15	-	0.15	1 30	...	...	8
Onion Lake .....	52° 52	109° 59	...	...	...	...	...	...	...	...	...	...	...	...	0 20	3 28	...	...
Prince (Meota) .....	51° 0	105° 20	1700	12	-	7	41.0	3—25	-25	26	24.5	0.40	-	0.40	3 28	...	...	...
St. Walburg .....	53° 26	109° 9	...	...	...	...	...	...	...	...	...	...	...	...	2 29	...	...	...
Scotts (Ex. Farm) .....	51° 58	109° 20	...	15.6	-	3	43.5	4—12	-12	25	17.8	0.05	-	0.05	2 29	...	...	...
Waseca .....	53° 4	109° 29	...	16.6	-	7	44.0	12—14	-14	25	17.7	0.20	-	0.10	3 28	...	...	...
The Saskatchewan Forks																		
Melfort .....	52° 47	104° 30	...	15.1	+9.1	19	39.0	4—24	-24	21	17.4	0.05	-0.27	0.10	3 28	...	...	...
Prince Albert .....	53° 10	106° 0	1432	16.6	+11.1	26	44.5	4—25	-25	24	19.4	0.11	-0.65	0.10	2 29	...	...	...
Rosthern .....	52° 41	106° 20	1052	12.9	-	4	33.0	11—21	-21	24	18.8	8	-	8	0 31	...	...	...
Saskatoon .....	52° 15	100° 30	1571	15.5	+7.9	13	37.8	6—12	-12	21	17.8	0.10	-0.54	0.10	1 30	...	...	...
Lower Saskatchewan River																		
Lost River .....	53° 17	104° 21	...	12.6	-	3	38.0	4—10	-10	24	25	17.5	T	-	T	0 31	...	...
MANITOBA—																		
Qu'Appelle and Assiniboine Rivers																		
Awenne (St. Albans) .....	49° 42	99° 35	1180	17.9	+11.6	29	45.5	11—19	-19	25	21.3	0.11	-0.84	0.06	2 29	...	...	...
Boissevain .....	50° 25	101° 1	1703	...	...	...	...	...	...	...	...	...	...	...	0 31	...	...	...
Brandon .....	49° 51	99° 57	1176	15.9	+10.5	27	44.1	11—19	-19	25	21.7	0.00	-0.59	0.00	0 31	...	...	...
Carmarthen .....	49° 31	98° 0	872	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cypress River .....	49° 55	100° 33	1400	14.0	+7.8	28	37.0	4—18	-18	25	19.9	0.05	-0.53	0.05	1 30	...	3	...
Hillview .....	50° 15	99° 50	1699	15.8	+6.3	3	49.0	12—22	-22	25	19.5	0.15	-0.47	0.06	5 26	...	...	4
Minnedosa .....	50° 15	99° 50	1699	15.8	+6.3	3	49.0	12—22	-22	25	19.5	0.15	-0.47	0.06	5 26	...	...	...
Ninette .....	49° 24	99° 38	1363	20.5	-	3	51.0	5—11	-11	25	21.0	0.03	-	0.03	1 30	...	...	...
Ninnes .....	49° 14	99° 51	1649	20.1	-	3	47.0	11—12	-12	24	17.8	0.00	-	0.00	0 31	...	...	...
Norquay .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pierston .....	49° 11	101° 5	1531	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pipestone .....	49° 34	100° 58	1400	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Portage la Prairie .....	49° 37	98° 12	1232	19.9	+12.7	24	48.0	12—15	-15	25	26	10.8	0.10	-0.18	0.10	1 30	...	...
Portage la Prairie (2) .....	49° 56	98° 17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Russell .....	50° 59	101° 20	...	15.2	+11.5	20	46.0	4—	-	23	17.6	0.10	-	0.10	1 30	...	...	...
Souris .....	49° 37	103° 14	...	20.5	-	3	47.0	10—11	-11	25	18.6	0.13	-0.71	0.05	4 27	1	...	...
Treherne .....	49° 26	98° 40	1212	22.0	+11.5	18	47.0	10—11	-11	25	18.6	0.13	-0.71	0.05	4 27	1	...	...
Verden .....	49° 51	100° 55	1444	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
The Red River																		
Almasippi .....	49° 14	99° 20	...	21.3	+10.8	11	51.0	11—	-	25	21.3	0.10	-0.90	0.10	1 30	...	...	2
Morden .....	49° 11	98° 6	978	21.6	+9.4	1	54.0	12—15	-15	25	17.5	0.21	-0.65	0.20	1 30	...	...	...
Oak Bank .....	49° 57	96° 42	800	18.2	-12.3	31	48.0	11—16	-16	25	17.2	0.30	-0.22	0.30	1 30	...	...	...
Stony Mountain .....	50° 40	97° 14	...	18.1	+11.2	31	48.0	11—16	-16	25	24.4	0.13	-	0.10	1 30	...	...	...
Winnipeg .....	49° 53	97° 7	760	19.1	+11.7	39	48.8	11—14	-14	25	17.6	0.26	-0.46	0.12	3 28	1	...	2

## TEMPERATURE AND PRECIPITATION AT STATION S IN THE DOMINION OF CANADA, DEC, 1913.

\* Stations not furnished with Registering Thermometers.

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet	TEMPERATURE.						PRECIPITATION				Days with 01 or more.	No. of fair days	No. of auroras	No. of thunderstorms	No. of fogs
				Mean	Difference from average	Yr's observations	Highest	Lowest	Mean daily range	Amount.	Difference from average	Highest fall in month						
MANITOBA—Continued																		
Douglas Lake and River	52 18	97 23	716															
Bereau River	51 38	94 02	957	20.3	—	8	46.0	5-11	16.0	25	20.3	8	—	0	31	..	..	..
Dauphin	51 38	94 02	957	20.3	—	8	46.0	5-11	16.0	25	20.3	8	—	0	31	..	..	..
Moose Horn Bay (Arkansasville)	51 15	99 33	810			4	45.5	5	—	—	—	0.03	—	0.01	3	28	1	..
Lake Winnipegosis																		
Le Pas	52 6	101 15	1112	12.1	—	4	40.0	4	-27.0	24	17.3	0.13	—	0.09	2	9	..	..
ONTARIO—																		
The Lake Superior Districts																		
Rainy River																		
Port Frances	48 36	93 25																
Kenora	49 48	93 32	1192	16.8	+7.5	12	41.0	5	-17.1	24	10.8	0.05	-1.09	0.05	1	30	..	..
Shedden Lake	49 37	93 05		20.1	—	1	46.0	11	-11.5	26	16.5	0.12	—	0.02	2	29	..	..
Chaleur Bay																		
Kakabeka Falls	48 29	89 26	912	21.9	—	6	53.0	11	-11.0	25	21.2	0.23	—	0.29	2	29	..	..
Port Arthur	48 27	89 12	644	25.0	+10.6	32	50.0	5	-9.0	25	18.0	0.08	-0.61	0.06	3	28	..	1
Sarnia	48 50	87 15	533	24.6	—	10	52.5	6	-14.5	31	24.9	0.02	—	0.50	3	28	..	1
Algoma																		
Biscoe	47 40	82 11	1333	19.9	—	1	42.2	5	-19.0	26	15.8	1.33	—	0.65	7	24	..	..
Bruce Mines	46 18	83 55	595	27.0	+9.2	15	52.0	5	-3.0	25	14.7	0.64	-1.53	0.57	2	29	..	1
Chapleau	47 48	83 28		20.8	—	5	45.5	2	-17.0	22	13.7	0.61	—	0.50	3	28	..	..
Copper Cliff	46 30	80 59	24.6	—	—	5	46.0	5	-8.0	26	18.8	1.01	—	0.30	8	23	..	1
Grassett	5 29	81 29		—	—	1	44.0	5	—	—	—	0.25	—	0.10	3	28	..	..
Heron Bay																		
Port Hope	41 40	82 14		15.8	—	3	42.0	14	-25.0	26	19.1	0.70	—	0.20	5	26	..	..
Port Hope	48 35	85 16	1252	28.0	—	3	45.0	1-18	-2.0	26-27	15.8	0.58	—	0.30	4	27	..	1
Timmins (Sandy Falls)	48 40	81 31	885	16.3	—	1	43.5	6	-22.0	26	20.0	2.36	—	0.60	10	21	1	..
White River	48 55	80 16	1248	17.3	+9.2	44	43.0	5	-34.0	31	24.8	0.70	-1.09	0.20	7	24	..	..
Nipissing																		
Cochrane	49 2	81 0	946	14.5	—	2	36.0	1-14	-27.0	26	17.6	1.30	—	0.30	8	23	..	2
Haliburton	47 29	79 39	687	19.9	+8.4	18	45.7	5	-16.9	31	16.5	2.32	+0.07	0.71	12	19	1	..
Iroquois Falls	48 45	80 40	550	15.5	—	1	37.2	5	-24.4	26	31	19.0	2.00	—	0.35	16	15	..
Montreal River	47 58	79 29		20.2	—	3	44.0	5	-20.0	31	19.7	1.04	—	0.40	6	25	..	..
Upper Ottawa River																		
Rutherford (Lake Falmou)	46 15	74 18		22.2	+10.3	19	41.0	2	-15.5	30	15.1	1.15	-1.23	0.30	7	24	1	..
Stonewall (Rockcliffe)	46 9	78 6	557	22.5	+8.4	37	42.0	3-5	-5.0	27	16.8	1.46	-0.53	0.20	20	11	..	1
Upper St. Lawrence and Lower Ottawa Rivers																		
Algonquin	45 12	76 13	390	25.0	—	2	45.2	7	-6.8	28	13.3	2.04	—	0.60	8	23	..	..
Bloomfield	41 59	77 21	260	30.7	+5.7	14	59.0	8	-2.0	27	13.8	0.47	-2.19	0.22	5	26	..	..
Hillier				29.6	—	2	44.0	5	-1.0	27	9.0	0.42	—	0.20	3	28	..	..
Kinston	41 13	76 29	285	33.9	+6.7	49	41.1	1	-0.4	27	14.7	1.66	-1.18	0.61	10	21	..	5
Montague	41 56	75 57		4	—	4	40.0	15	-3.0	—	—	1.00	—	0.50	6	25	..	..
Morrisburg	41 56	75 12		26.2	—	1	47.0	7	-8.5	27	14.4	1.27	—	0.40	5	25	..	..
North Gower	43 8	75 47		—	—	10	—	—	—	20	—	—	—	—	—	—	—	..
Ottawa	45 28	75 42	294	24.4	+7.5	29	41.0	3-6	-4.0	28	12.6	1.78	-0.94	0.45	13	18	..	1
Renfrew	45 28	76 30	416	24.1	+7.0	22	43.0	7	-5.3	28	13.1	2.40	-1.14	0.80	8	23	..	7
Georgian Bay Counties																		
Barrie	44 23	79 41	879	29.0	+6.1	34	18.0	2	-1.0	27	11.4	1.04	—	0.33	13	18	..	..
Beattie	45 8	79 29	809	25.1	+0.0	38	15.0	1-5	-8.0	27	15.0	1.31	-3.23	0.43	6	26	..	..
Big Chute (Buck's P. O.)	41 42	79 28	658	29.7	—	1	49.0	2	-10.0	26	16.7	0.75	—	0.39	5	26	..	..
Cowdwater	44 38	79 40	650	23.8	+9.1	26	53.0	2	-13.0	27	19.8	0.45	-3.24	0.37	4	27	..	..
Collingwood	44 31	80 2		—	—	—	—	—	—	—	—	—	—	—	—	—	—	..
Gravenhurst	44 54	79 20		27.7	+6.8	43	47.0	2	-7.0	27	15.7	1.39	-2.55	0.45	8	23	1	..
Huntsville	43 19	79 8		18.6	—	6	55.0	5	-8.0	27	12.5	—	—	—	—	—	—	..
Midland	44 41	79 53	750	31.6	—	6	55.0	2	-4.0	27	—	1.29	—	0.30	6	25	..	..
Markdale	44 10	80 29	635	30.0	—	2	53.0	3	-11.0	9	12.5	0.55	—	0.20	3	28	..	1
Medford	44 36	80 36		—	—	—	—	—	—	—	—	—	—	—	—	—	—	..
Orillia	44 37	79 24	775	29.1	+5.9	21	48.0	1-5	-9.0	27	12.9	0.56	-4.14	0.46	3	28	..	..
Owen Sound	44 31	80 55	597	28.9	+7.6	37	46.0	1-5	-4.6	7	15.5	1.44	-3.22	0.36	6	22	..	2
Perry Sound	45 19	80 0		—	—	—	—	—	—	—	—	—	—	—	—	—	—	..
Ronville	45 15	78 57	1038	26.3	—	6	46.0	5	-4.0	26	15.8	0.81	—	0.40	5	26	..	..
Lake Huron Counties																		
Biran	43 2	81 55	609	32.0	+5.2	30	51.0	2	-8.8	22	9.4	1.11	-2.29	0.58	4	27	..	2
Clinton	43 32	82 37		30.8	+6.2	11	53.0	1	-3.0	29	11.0	1.12	-2.35	0.39	9	22	..	..
Goderech	43 45	81 41		32.1	+5.5	23	43.0	1	-5.0	27-28	9.1	0.56	-1.64	0.31	7	24	..	..
Lockport	43 56	81 30	908	29.3	+3.8	28	59.0	1	-4.6	27	11.8	1.02	-3.26	0.44	6	25	..	2
North Bruce	44 23	81 25		32.1	+6.5	25	55.0	1-2	-4.0	27	11.6	0.73	-2.50	0.43	4	27	..	..
Southampton	44 30	81 21	656	32.2	+4.8	37	52.8	1	-2.1	27	11.0	0.74	-3.01	0.25	11	20	..	..
Lakes St. Clair & Erie, Niagara Peninsula																		
Chatham	42 23	82 12	595	34.2	+6.8	27	58.0	2	-16.0	22	12.6	0.29	-1.53	0.19	2	29	..	..
Cottam	42 7	82 45	306	30.6	+0.4	26	59.0	2	-10.0	21	15.5	0.99	-0.73	0.40	4	28	..	5
Dutton	42 40	81 39		22.7	—	1	57.0	17	-2.0	28	14.5	0.29	—	0.20	1	30	..	..
Grimsby	43 13	80 36		33.6	—	4	52.0	6-7	-4.0	26	11.6	0.33	—	0.15	6	27	..	..
Pelee Island	41 56	82 37	585	—	—	31	—	—	—	—	—	0.38	—	0.19	4	27	..	..
Port Burwell	42 35	80 55	592	37.6	+8.6	10	49.0	1-7	-0.0	27	9.1	0.66	-1.77	0.40	4	27	..	..
Port Dover	42 37	80 13	625	32.3	+4.4	35	53.5	4	-4.5	27	11.6	1.17	-1.80	0.45	8	23	..	..
Port Stanley	42 40	81 19	599	32.9	+1.6	39	50.8	3	-5.0	27	13.1	0.54	-2.14	0.40	12	18	..	1
St. Catharines	43 0	79 17	317	34.4	—	3	53.0	-2	-12.0	27	12.6	—	—	—	—	—	—	..
Stoney Creek	43 13	79 45	292	33.8	+4.0	26	52.0	5-7	-3.0	27	11.9	0.72	-2.37	0.60	6	29	..	..
Wellburg	43 35	81 24		29.3	—	1	44.0	1-12	-14.0	27	14.9	0.26	—	0.20	1	30	..	..
Welland	43 59	79 17	577	33.4	+6.1	27	51.0	7	-4.0	27	11.6	1.24	-2.52	0.43	7	24	..	..
Windsor	42 20	80 47	695	34.5	+7.5	40	59.0	1	-19.0	22	10.0	0.86	-1.45	0.45	3	28	..	..



## TEMPERATURE AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DEC., 1913.

\*Stations not furnished with Registering Thermometers

STATION	Latitude	Longitude	Elevation above sea level, in feet	TEMPERATURE							PRECIPITATION							
				Mean	Difference from average.	Yr's Observations	Highest	Date	Lowest	Date	Mean daily range	Annual	Difference from average	Heaviest fall in month	Days with 50 or more	No. of fair days	No. of Auroras	No. of thunderstorms
NOVA SCOTIA—																		
Advocate	45 10	64 46	50	28.8	—	4	58.0	8	—1.0	17	16.6	—	—	—	—	—	—	—
Antigonish	43 28	61 59	88	30.6	+1.3	39	54.8	8	14.2	7	19.9	6.21	+0.52	1.75	15	16	—	—
Halifax	44 30	63 36	40	24.8	—	12	50.8	2	3.0	29	12.6	4.49	—	1.41	22	19	1	2
Kentville	45 2	61 36	40	24.2	—	1	55.0	8	6.0	28	12.4	4.40	—	1.44	15	16	—	—
Kentville (2)	44 0	64 40	56	34.2	—	1	57.0	14	10.0	29	20.4	5.97	—	1.86	9	22	1	1
Liverpool	45 46	64 34	...	26.1	—	1	55.0	8	0.0	29	12.6	2.81	—	1.15	7	24	—	—
Nappan	44 30	64 42	...	29.6	—	2	48.0	14-20	10.0	23	13.5	4.8	—	1.54	9	22	—	—
New Germany	45 23	64 19	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parsonsboro	45 39	61 22	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port Hastings	44 58	59 46	25	38.1	+1.6	30	45.0	1-29	23.0	16	—	1.71	—	0.54	7	24	—	—
*Sable Island, E. Pt.	43 57	60 6	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sable Island (Main Station)	46 10	60 10	35	31.6	+2.4	40	56.5	8	10.5	17	12.3	4.84	-0.85	1.20	17	14	—	—
Sydney	45 22	63 18	77	25.5	+2.6	39	56.8	8	1.6	13	15.9	3.92	-0.75	0.82	13	18	—	—
Truro	45 23	63 13	...	27.6	—	3	56.5	8	2.5	29	17.7	4.38	—	0.08	12	18	—	—
Truro (2)	45 15	61 8	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Whitehead	44 59	64 6	90	28.6	+2.1	11	57.0	8	6.5	29	12.7	4.47	+0.45	1.19	12	19	—	—
Windsor	45 7	64 20	...	29.7	—	1	55.9	7	8.9	28	16.4	3.81	—	1.20	13	18	—	—
Wolfville	43 50	66 2	65	34.3	+3.1	35	53.0	8	17.1	28	11.9	4.51	-0.24	1.27	15	16	—	—
Yarmouth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
P. E. ISLAND—																		
Charlottetown	46 14	63 10	38	28.2	+3.1	38	50.0	8	16.0	31	10.5	2.70	-0.95	0.84	19	12	—	—
Charlottetown (Exp. Farm)	46 14	63 7	75	27.6	—	4	56.0	...	7.0	16-17	13.0	4.26	—	0.76	15	16	—	—
Hamilton	46 25	63 48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Summerside	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NEWFOUNDLAND—																		
*Amour Point	51 28	55 51	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Burin	47 0	55 10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Cape Norman	51 38	55 52	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fogo	49 43	54 17	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Point Riche	50 42	57 25	35	23.8	+1.8	29	45.0	11	2.0	29	—	0.67	-12.99	0.05	8	23	—	—
Port aux Basques	47 35	50 10	27	29.3	—	5	46.0	8	14.0	16	9.1	6.84	—	1.73	21	9	—	—
St. George's	48 28	53 25	...	32.0	—	25	51.4	9	11.6	16	13.6	2.74	—	0.56	17	14	—	—
St. John's	47 34	52 42	125	30.0	-1.1	40	48.0	25	9.0	16	9.5	7.05	+1.61	1.25	17	14	1	2
BERMUDA—																		
Prospect	32 17	64 46	151	63.4	-1.4	32	72.6	6	53.8	14	10.4	3.68	-1.20	1.08	15	16	—	—



## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c. DURING DEC. 1913.

STATIONS.	RAINFALL.				Date.	SNOWFALL.				REMARKS
	Amount inches.	No. of Days .01 or over.	No. of Fair Days.	Heaviest Fall in Month.		Amount inches.	No. of Days	Heaviest Fall in Month.	Date	
BRITISH COLUMBIA—										
Alkali Lake .....	0 20	2	21	0 19	28	1.3	2	1 0	31	
Annis (Genoe Point).....	1 67	8	21	0 40	24					
Beaver Lake .....	5.12	11	20	1 31	27					
Cogitiam .....										
Cariboo Road No 141.....	5 39	12	19	1 05	27					
Denman's Island .....						27 0	5	1 0	14 31	
Percusson .....						6 0	1	6 0		
Goldstream Lake .....	3 31	15	15	0 85	31					
Hydraulic .....						Closed for winter				
Hornby Island.....	2 91	6	25	0 76	10					
Iavernere .....						1 2	1	1 2	24	
Jordan River .....	3 67	23	11	0 55	31					
Jordan River (Bear Creek) .....	6 72	18	12	1 09	31	2 0	1	2 0	25	
Little Qualicum(Fr.Cr V.L.) .....	2 49	9	22	0 55	27					
Lumby .....						4 5	3	3 0	28	
Nans Harbour .....	12 19	6	22	2 60	8	6 0	5	4 0	14	
Rock Creek .....						8 5	5	5 5	30-31	
Shawnaigan Lake .....										
Sooke Lake .....	3 57	12	19	0 61	11					
Wycliffe .....						7 0	3	4 0	31	
ALBERTA—										
Bardo .....	0 00					0 0				
Bismark .....	0 00					0 0				
Bruekerheim .....										
Bittern Lake .....	0 10					0 5	1	0 5	23	
Brooks .....										
Beaver Mines.....	0 21					3 0	2	2 0	18	
Coleman .....	0 00					0 0				
Cowley .....	0 04					0 8	1	0 8	31	
Caldwell .....										
Clareholm .....	0 01					5 0	1	5 0	31	
Clarinda .....	0 00					8		8	25	
Dorence (Radian).....	0 00					0 0				
Dunstable (Five Lakes).....	0 00					0 5	4	0 3	23	
Grassy Lake .....	0 00					4 0	1	4 0	31	
Jumping Pound .....	0 00					3 0	2	3 0	31	
Loch Noy .....										
Lyndon .....	0 50					5 2	1	5 2	31	
Lineham .....	0 00					0 0				
La Pearl .....										
Leithbridge .....	0 00					2 0	1	2 0	31	
Macleod .....	0 00					6 0	1	6 0	31	
Mayercroft .....	0 00					1 7	1	1 7	31	
Mountain View .....	0 00					2 5	2	1 5	18	
Maanville (Mayercroft Ranch) .....	0 00					8	2	8	7-22	
Nateby .....										
Nanton .....	0 00					8 0	1	8 0	31	
Okotoks .....										
Pekisko .....	0 00					8	1	8	18	
Ponoka .....	0 00					0 6	1	0 6	31	
Seven Persons .....	0 00					0 9				
Tilley .....										
Waterton Mills .....	0 00					5 0	2	3 0	18	
SASKATCHEWAN—										
Gull Lake .....										
Gull Lake (Fks. Swift Cur.) .....	0 00					0 5	2	0 3	7	
Meadow Lake .....										
The Meadows (Battle Ck.) .....										
Willow Creek (Maple Cr.) .....										
Wapashoe .....	0 14	1	30	0 14	31					
MANITOBA—										
Cartwright.....	0 13	1	29	0 13	7	0 3	1	0 7	26	
Deloraine .....										
Norquay (Swan Lake).....						0 7	1	0 3	26	
Rapid City .....										
Rose Bank .....										
ONTARIO—										
Brantford(Bow Park Farm).....	0 06	3	23	0 03	23	5 2	5	4 5	23	
Deer Park .....	0 84	2	28	0 71	23	2 3	1	2 3	23	
Dutton .....						2 0	1	2 0	24	
Emsdale .....	0 40	3	21	0 22	7	9 5	7	2 5	24	
Fort Frances .....										
Georgetown .....	0 04	1	27	0 04	7	6 1	3	5 0	23	
Grantham .....	0 70	2	28	0 58	24	0 3	1	0 3	26	
Grand Valley .....	0 52	3	26	0 20	8	3 0	2	2 0	24	
Hillier .....										
MacCaa .....	0 10	1	28	0 10	7	11 0	2	7 0	23	
Niagara Falls .....										
Nipigon .....						6 6	6	2 0	27	
Princeton .....										
Point Clark .....	0 00					0 0				
Renfrew .....										
Sydenham .....						6 0	1	6 0	24	
Strathroy .....										
Watford .....	0 75	2	29	0 40	24	Not Measured				
Wawaion Falls .....	0 11	1	21	0 11	2	22 5	5	6 0	8	
Westport .....	0 35	1	27	0 35	7	9 3	3	4 5	8	
Westminster .....						4 0	2	2 0	8-23	
Wealey .....										
Winton .....	0 24	1	26	0 24	7	11 0	1	5 0	24	



## PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &amp;c., DURING DEC., 1913.

STATIONS	RAINFALL.					SNOWFALL.				REMARKS
	Amount in inches	No. of Days .01 or over	No. of Fair Days.	Heaviest Fall in Month	Date	Amount in inches	No. of Days.	Heaviest Fall in Month	Date	
QUEBEC—										
Bark Lake (Riviere Desert) .....										
Kipawa Dam.....	0 53	2	21	0 30	7	11 6	8	2 9	7-20	
Lucerno.....	0 40	2	24	0 20	2-7	11 5	5	9 0	23	
Perkins Mills.....	0 45	1	24	0 45	7	5 4	6	2 5	30	
Quinte Dam.....						15 1	12	6 8	7	
Timiskaming.....										
Ville Marie.....										
NEW BRUNSWICK—										
Point Escuminac .....	0 20	3	22	0 12	7	16 9	6	10 0	25	
NOVA SCOTIA—										
Big Mushamush Lake (Ma- honey).....										
Kentville.....			25	2 11	8	1 3	1	1 8	4	
Milton.....	6 37	3	25	2 11	8	1 3	1	1 8	4	
Mushamush River (Mahone)										
Nappan .....										
South Alton .....	1 67	6	16	0 35	3-20	29 0	9	6 0	24	
White Rock.....	4 63	4	23	2 17	27	11 0	4		21	

PRESSURE, HUMIDITY, CLOUDINESS AND WIND AT STATIONS OF THE FIRST CLASS DURING THE  
MONTH OF DEC., 1913.

a Barometer not reduced to sea level

STATION	Latitude N.	Longitude W.	Elevation above sea level, in feet.	PRESSURE.				Mean relative humidity.	Mean amount of cloud No. of days completely clouded.	DIRECTION OF WIND FROM										VELOCITY OF WIND		
				Mean reduced.	Highest.	Lowest.				S.	S.W.	W.	N.W.	C.	Total number of observations.	Mean in miles per hour.	Maximum velocity.	Date and direction from.				
						Range.	Range.															
BRITISH COLUMBIA—																						
Atlin.....	50	35 133.48	2240	29.73	30.4	29.12	1.28	—	8	19	7	14	0	14	15	2	4	62	14.9	...	...	
Barkerville.....	33	2 121.35	4180	29.94	30.32	29.22	1.16	—	6	1	0	1	1	1	1	1	48	62	...	...		
Kamloops.....	50	42 123.24	1245	30.06	30.47	29.37	1.14	—	7	0	3	0	28	0	6	0	48	62	...	...		
a Nanaimo.....	49	10 123.37	125	29.90	30.15	29.11	1.19	—	7	0	10	13	1	1	1	2	27	62	...	...		
Prince Rupert.....	54	18 130.18	170	29.74	30.14	28.99	1.25	—	6	14	0	2	16	1	0	0	37	62	...	...		
Triangle Island.....	50	52 125.3	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
a Franquise.....	54	41 120.29	29	29.78	30.1	28.01	1.14	—	87	5	14	1	0	91	4	60	0	1	62	...		
Vancouver.....	49	17 124.5	136	30.00	30.46	29.21	1.1	—	90	2	1	0	6	34	5	1	1	13	62	...		
Victoria.....	48	24 123.19	85	30.00	30.16	29.27	1.1	—	87	7	14	18	5	18	1	1	1	6	2	27	1.1	
YUKON—																						
Dawson.....	64	4 139.20	1200	29.76	30.5	28.87	1.61	—	7	15	1	0	0	2	0	0	0	47	62	...	...	
ALBERTA—																						
Banff.....	51	10 115.34	4542	30.16	30.66	29.65	1.31	—	71	3	0	0	2	0	2	3	17	25	4	14	62	
Calgary.....	51	2 114.2	3389	30.08	30.44	29.25	1.32	—	75	5	0	0	0	4	2	3	16	92	4.5	2	7 SW	
Edmonton.....	53	33 113.30	2458	29.98	30.67	29.10	1.47	—	8	0	0	0	4	6	8	24	4	3	6	62	4.0 13 13, SW	
Medicine Hat.....	50	1 110.37	2161	30.04	30.63	29.59	1.04	—	76	0	2	0	1	0	3	3	24	9	2	13	62	
SASKATCHEWAN—																						
Battleford.....	52	41 108.20	1620	30.01	30.67	29.50	1.38	—	5	3	0	0	0	13	0	3	4	39	62	...	...	
Moose Jaw.....	50	21 105.35	1750	30.12	30.72	29.60	1.39	—	2	3	8	0	0	4	2	17	12	6	31	93	...	
Prince Albert.....	53	10 106.0	1432	30.06	30.47	29.30	1.41	—	95	4	10	0	0	6	2	3	14	9	6	22	62	
Qu'Appelle.....	50	30 103.47	2115	30.07	30.41	29.40	1.24	—	88	3	5	3	1	7	12	12	5	10	1	6	10.3 31 7, NW	
Swift Current.....	50	20 107.45	2437	30.06	30.62	29.29	1.33	—	87	4	0	0	3	0	1	14	28	8	3	5	62	
MANITOBA—																						
a (Wawesa (St. Alban's).....	49	42 99.33	1180	28.83	29.23	28.60	0.64	—	94	3	0	1	2	0	1	0	5	19	26	62	...	
Winnipeg.....	49	53 97.7	760	30.13	30.57	29.71	0.80	—	91	3	0	0	7	1	1	12	15	12	19	7	62	
ONTARIO—																						
Cochrane.....	49	2 31.0	946	30.04	30.51	29.58	0.94	—	6	11	2	9	1	2	1	8	10	6	62	7.1 26 14NW		
Guelph.....	43	33 80.16	654	30.06	30.4	29.52	1.15	—	91	7	20	13	5	1	11	1	12	35	0	93	12.1	
Halifax.....	47	2 79.30	687	30.06	30.4	29.52	1.15	—	81	7	14	9	14	1	3	11	8	8	10	6	62	
Kingston.....	44	13 76.20	285	30.04	30.48	29.12	1.21	—	85	7	15	15	0	18	0	13	13	13	0	62	9.2	
London.....	42	50 81.13	808	30.04	30.45	29.30	1.05	—	14	14	9	9	12	18	4	14	5	93	...	...		
a Lindsay.....	45	26 75.42	694	30.04	30.47	29.26	1.15	—	92	7	15	11	11	0	18	0	18	0	62	...	...	
Ontario.....	45	26 75.42	694	30.04	30.47	29.26	1.15	—	92	7	15	11	11	0	18	0	18	0	62	...	...	
Perry Sound.....	45	19 80.0	235	30.03	30.24	29.11	1.8	—	88	7	15	9	11	1	8	1	12	17	0	62	9.6 23 9W	
Port Arthur.....	48	25 89.12	641	30.07	30.43	29.61	1.19	—	87	5	9	4	5	0	8	1	24	27	9	93	8.6 37 6, NW	
Port Starny.....	42	40 81.13	592	30.04	30.41	29.43	1.08	—	86	6	12	7	2	4	1	1	1	15	3	62	...	
Southampton.....	44	30 81.21	656	30.06	30.42	29.29	1.13	—	87	7	15	3	10	5	6	2	1	10	2	62	14.4 49 8, NW	
Stonehill.....	46	9 78.6	557	30.04	30.45	29.44	1.01	—	87	5	7	0	0	4	0	0	1	18	0	40	62	
Toronto.....	43	40 79.24	351	30.06	30.41	29.40	1.01	—	84	6	9	8	2	3	1	3	7	12	0	6	14	19 8, NW
White River.....	48	35 85.16	1252	29.02	30.1	28.03	1.74	—	7	14	13	4	2	3	7	4	12	5	10	6	35	22 8, NW
Woodstock.....	43	8 50.47	580	30.01	30.39	29.43	0.97	—	7	13	4	4	5	7	2	18	22	30	0	90	9.0 28 1, NW	
QUEBEC—																						
Anticosti S.W. Pt.....	49	24 63.35	30	29.93	30.57	29.12	1.45	—	81	8	24	19	1	4	5	1	12	15	5	7	1	62
Father Point.....	48	31 68.19	20	29.93	30.57	29.12	1.45	—	81	8	24	19	1	4	5	1	12	15	5	7	1	62
Montreal.....	45	30 73.35	187	29.99	30.41	29.17	1.31	—	82	7	15	9	17	2	4	3	21	28	16	2	93	14.3
Quebec.....	46	48 71.13	903	29.96	30.41	29.07	1.47	—	82	7	15	9	17	2	4	3	21	28	16	2	93	14.3
Shebrooke.....	45	32 72.5	620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NEW BRUNSWICK—																						
Chatham.....	47	3 65.29	21	29.92	30.61	28.99	1.74	—	77	6	11	0	4	7	2	1	1	17	14	0	62	
Fredericton.....	45	57 66.35	164	29.93	30.6	28.73	1.89	—	77	6	11	0	4	7	2	1	1	17	14	0	62	
St. John's.....	45	17 66.4	70	29.93	30.58	28.74	1.74	—	76	6	11	0	4	7	2	1	1	17	14	0	62	
NOVA SCOTIA—																						
Halifax.....	44	39 63.36	88	29.88	30.51	28.87	1.50	—	88	7	15	0	2	7	4	3	3	4	15	0	62	
Sable Island (MStation).....	43	55 60.6	23	29.85	30.56	28.11	1.75	—	87	7	18	8	6	0	7	2	18	0	7	95	18.4 48 27 NE	
Sydney.....	46	10 60.10	35	29.91	30.41	28.96	1.61	—	87	7	15	0	2	7	4	3	3	4	15	0	62	
Truro.....	45	27 61.15	29	29.85	30.51	28.87	1.50	—	88	7	15	0	2	7	4	3	3	4	15	0	62	
Truro (2).....	45	27 61.15	29	29.85	30.51	28.87	1.50	—	88	7	15	0	2	7	4	3	3	4	15	0	62	
Wolfeville.....	45	7 64.20	20	29.89	30.56	28.87	1.68	—	87	7	15	0	2	7	4	3	3	4	15	0	62	
Yarmouth.....	43	50 68.2	65	29.92	30.53	29.08	1.47	—	81	7	16	12	2	7	4	3	3	4	15	0	62	
P. E. ISLAND																						
Charlottetown.....	46	14 63.10	38	29.88	30.57	28.81	1.76	—	83	8	18	0	2	7	4	3	3	4	15	0	62	
NEWFOUNDLAND																						
Burin.....	47	1 55.10	37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Fogo.....	49	43 51.17	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Port aux Basques.....	47	35 50.10	27	29.84	30.55	28.77	1.58	—	87	7	15	0	2	7	4	3	3	4	15	0	62	
St. George's.....	48	2 58.31	21	29.83	30.51	28.99	1.40	—	87	7	15	0	2	7	4	3	3	4	15	0	62	
St. John's.....	47	34 72.42	125	29.74	30.42	28.56	1.99	—	73	7	16	12										
BERMUDA																						
St. Peter's.....	32	17 64.46	151	30.03	30.34	29.67	0.67	—	82	6	2	10	11	2	4	12	16	7	25	0	93	

FREQUENCY OF THE WIND FROM THE EIGHT CARDINAL POINTS AT STATIONS OF  
THE SECOND CLASS, DURING THE MONTH OF DECEMBER, 1913

STATION	DIRECTION OF WIND FROM									Total num- ber of Observ- ations
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	
ALBERTA—										
Athabasca Landing.....	0	4	3	6	3	8	6	0	0	31
Didsbury.....	0	1	3	1	7	16	0	3	0	31
Endiang.....	2	1	2	11	15	20	3	8	0	62
Halkirk (Emsburg).....	2	2	1	6	4	9	0	11	27	62
Hillstown.....	1	4	1	11	10	9	7	9	0	62
Loveland.....	4	0	2	0	0	0	38	1	17	62
Macleod.....	2	2	3	18	20	15	7	18	8	93
Pakan (Victoria).....										
Ranfurly (Waitefield).....	2	2	3	18	20	15	7	18	8	93
SASKATCHEWAN—										
Chaplin.....	3	0	2	0	11	1	10	1	3	31
Crescent Lake.....	5	1	1	2	7	7	7	1	0	31
Estevan.....	0	1	2	4	1	1	3	4	15	31
Fort Qu'Appelle.....	0	3	9	5	9	9	24	2	1	62
Grenfell (Brownhill).....	1	4	2	10	6	11	2	6	0	42
Indian Head.....	3	2	0	8	10	34	13	19	4	93
Larchmount (Glenbryan).....	2	1	1	2	5	26	11	12	2	62
Moosomin.....										
Muenster (St. Peter's Monastery).....	0	4	4	10	18	5	9	2	0	62
Onion Lake.....										
Pense (Gatesgarth).....	0	2	0	13	0	5	5	6	0	31
Waseca.....	0	1	2	3	0	1	8	16	0	31
MANITOBA—										
Berens River.....										
Brandon.....	0	12	3	6	2	20	12	7	13	75
Hillview.....	0	12	2	7	9	11	11	41	0	93
Moose Horn Bay (Aitkensville).....										
Morden.....	13	1	0	5	8	4	15	9	7	62
Oak Bank.....	13	3	2	1	9	11	9	9	5	62
Stony Mountain.....	1	0	1	1	14	13	8	20	0	58
ONTARIO—										
Agincourt.....	1	3	10	0	1	29	21	25	0	90
Alton.....	14	2	8	1	3	10	50	5	0	93
Beatrice.....	10	1	0	4	8	8	4	15	43	93
Biram.....	5	2	2	3	11	15	6	11	7	62
Clinton.....	3	3	0	8	7	20	3	17	1	62
Cottam.....	21	0	6	1	3	3	26	2	0	62
Gravenhurst.....	11	6	7	17	9	13	9	12	9	93
North Bruce.....	7	6	19	3	17	10	15	14	2	93
Orillia.....	4	1	0	1	8	5	9	3	0	31
Owen Sound.....										
Point Clark.....										
Port Dover.....	5	1	3	0	2	4	11	5	0	31
Stoney Creek.....	6	16	6	5	1	9	39	11	0	93
Uplands.....										
Wexford.....	0	1	4	1	0	12	1	7	5	31
QUEBEC—										
Abitibi.....	24	3	8	1	25	7	12	13	0	93
Anticosti, W. Pt.....										
Anticosti, Heath Point.....										
Bicquet.....	10	9	0	1	25	21	9	16	2	93
Brome.....	12	3	2	6	16	7	41	4	2	93
Cape Chatte.....	8	3	4	0	0	5	35	12	26	93
Cape Magdalen.....	3	0	2	3	25	4	5	46	5	93
Cap Rouge.....	4	6	0	0	0	0	0	21	0	31
Chicoutimi.....	7	18	0	0	0	1	6	15	46	93
Clarke City.....										
Manouan Crossing.....										
White Shore Lake.....										
NEW BRUNSWICK—										
Dalhousie.....	0	1	4	2	2	0	17	2	0	28
Moncton.....	1	9	3	3	0	0	1	14	0	31
Pt. Lepreaux.....	22	12	7	1	1	8	3	27	0	81
Sussex.....	0	5	0	0	0	1	1	7	16	30
NOVA SCOTIA—										
Kentville.....	2	1	6	2	5	2	7	6	0	31
Parrsboro.....										
Port Hastings.....										
Sable Island, E. Pt.....	1	17	0	16	3	22	0	34	0	93
Truro.....										
Whitehead.....	9	3	2	1	4	7	3	2	0	31

MEAN PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY IN THE MONTH OF  
DECEMBER 1913.

STATION.	Hours Ending																	
	4 a.m.	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.
Shawigan Lake.....						.01	.14	.16	.22	.22	.22	.15	.05					
Victoria.....							.05	.13	.21	.27	.26	.14	.04					
Salmon Arm.....					T	.02	.17	.29	.22	.26	.20	.16	.02					
Nanaimo.....																		
Vancouver.....							.03	.11	.17	.17	.21	.16	.03					
Agassiz.....							.16	.26	.28	.30	.20	.29	.14	.03				
Tranquille.....						.01	.15	.23	.32	.33	.31	.20	.09					
Summerland.....						.03	.04	.07	.10	.10	.18	.06						
Kamloops.....						.03	.29	.37	.41	.38	.25	.12						
Harper's Ranch.....																		
Invermere.....							.09	.19	.27	.33	.40	.18						
Edmonton.....					.01	.15	.54	.67	.63	.67	.54	.48	.08					
Lethbridge.....						.16	.58	.63	.77	.75	.76	.66	.65	.08				
Lacombe.....						.17	.42	.57	.72	.73	.76	.71	.31					
Medicine Hat.....						.08	.42	.56	.61	.59	.61	.62	.27					
Fort Dunvegan.....									.25	.67	.86	.18						
Fort Vermilion.....																		
Battleford.....																		
Indian Head.....						.12	.41	.59	.70	.70	.65	.56	.24					
Mansejaw.....						.29	.49	.64	.73	.68	.73	.61	.18					
Scott.....					.14	.37	.44	.50	.53	.55	.44	.27	.02					
Rosthern.....						.14	.30	.48	.59	.56	.59	.57	.33					
Brandon.....						.18	.36	.55	.67	.70	.72	.44	.01					
Winnipeg.....				T	.07	.19	.29	.42	.58	.66	.35	.13						
Haileybury.....						.16	.31	.38	.41	.58	.40	.40	.34	T				
Woodstock.....					.01	.11	.18	.31	.40	.32	.36	.37	.28	.03				
Lindsay.....						.05	.18	.27	.29	.31	.42	.45	.32	.03				
Barrie.....					.02	.13	.28	.32	.28	.28	.27	.32						
Toronto.....				T	.16	.30	.32	.36	.44	.43	.45	.31	.02					
Kingston.....				T	.11	.21	.23	.28	.37	.35	.31	.20	.12					
Ottawa.....					.01	.24	.30	.28	.27	.28	.41	.40	.30	.02				
Montreal.....																		
Cap Rouge.....						.05	.16	.21	.24	.22	.25	.21	.08					
Quebec.....						.12	.21	.34	.35	.30	.32	.28	.15					
Ste. Anne de la Pocatiere.....					.04	.21	.31	.35	.32	.26	.30	.25	.12					
Sherbrooke.....																		
Fredericton.....						.23	.37	.46	.53	.57	.55	.50	.41	.01				
Charlottetown.....						.07	.21	.21	.22	.20	.26	.28	.22	.01				
Napan.....						.07	.26	.35	.33	.37	.43	.36	.40	.02				
Wolfville.....						.12	.27	.37	.33	.33	.26	.34	.26	.01				
Kentville.....						.12	.27	.30	.32	.35	.37	.55	.32	.01				

## SUMMARY OF SUNSHINE RECORDS

DEC., 1912	Shawmagan Lake	Victoria	Salmon Arm.	Nanaimo.	Vancouver.	Alexs's.	Tranquille.	Sumnerland.	Kamloops.	Harper's Ranch.	Invermere.	Edmonton.	Lethbridge.	Lacombe.	Medicine Hat.	Fort Dunvegan.	Battleford.	Indian Head.	Moose Jaw.	Scott.	Northern.	Brandon.	Winnipeg.	Haileybury.	Woodstock.	Lindsay.	Barrie.	Toronto.	Kinston.	Ottawa.	Montreal.	Cap Rouge.	Quebec.	Ste. Anne de la Pointe.	Shenouoke.	Fredericton.	Charlottetown.	Napan.	Wolfville.	Kentville.
Registered duration in hours.....	35	34	39	24	28	55	50	18	59	—	45	117	136	117	20	—	123	135	101	119	112	85	86	73	72	55	87	64	78	—	43	64	77	—	112	52	80	74	75	
Percentage of possible duration....	14	13	15	9	10	22	20	7	24	—	18	50	62	57	47	11	50	54	42	46	45	34	33	26	25	20	31	23	29	—	16	24	25	—	41	20	30	27	23	
Difference from average .....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	+20	—	—	—	+13	+2	—	+7	+5	+4	+7	+2	+6	—	—	—	—	+5	—	—	—	—		
Maximum percentage in one day ..	71	54	77	75	63	86	68	43	74	—	60	90	94	91	53	44	83	90	94	95	89	92	90	84	81	83	80	92	—	77	87	90	—	53	81	86	92	88		
Date of maximum ..	20	20	2	19	19	19	9	7	21	15	4	1	21	3	6	—	4	10	10	6	11	24	31	11	27	27	19	27	27	—	27	24	27	—	6	23	9	29	29	
Number of days completely cloud- ed .....	13	11	17	22	14	20	10	19	14	17	6	1	5	2	21	—	6	2	8	5	6	6	10	12	14	17	10	15	12	—	15	13	19	—	12	20	12	13	14	

*Thunder recorded:*

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
7. Haliburton.
- 8.
9. Bruce Mines.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.
- 27.
- 28.
- 29.
- 30.
- 31.



*Auroras recorded:*

1. Atlin, Halkirk.
- 2.
- 3.
4. Cartwright IV, Aitkensville IV, Anglia, Ranfurly IV, Hillsdown IV.
5. Cartwright IV, Madoc IV, Mistassini IV, Gravenhurst IV.
- 6.
- 7.
- 8.
- 9.
- 10.
11. Wawaitin Falls.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
18. Prince IV.
- 19.
- 20.
- 21.
- 22.
- 23.
24. Cartwright IV, Aweme IV, Prince III, Pambrum I, Anglia, Ranfurly III, Hillsdown IV,  
Campsie III, Beaver Lodge IV.
25. Cartwright IV, Treherne IV, Aweme IV, Prince IV, Anglia, Minnedosa.
26. Winnipeg.
- 27.
- 28.
29. Minnedosa
30. Pambrum.
- 31.

## FORECASTS FOR DECEMBER 1913

The forecasts issued by this office at 11 p.m. each night, are for the 24 hours beginning at 8 a.m. the following day; and are published in most morning newspapers

The number of these predictions issued during the month was 1357. These were divided as follows:

District.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Per- centage.
Alberta.....	51	67	14	—	91.4
Saskatchewan.....	51	72	15	4	85.8
Manitoba.....	51	69	17	5	89.5
Lake Superior.....	119	88	22	9	83.2
Lower Lake Region.....	125	96	23	6	86.8
Georgian Bay.....	125	89	23	6	86.8
Ottawa Valley.....	116	89	21	6	85.8
Upper St. Lawrence.....	117	89	25	3	86.8
Lower St. Lawrence.....	127	92	31	4	84.6
Gulf.....	127	97	24	6	85.8
Maritime Provinces West.....	127	91	29	7	83.1
Maritime Provinces East.....	131	87	33	11	79.0
Total.....	1357	1263	267	67	85.2

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART, Director.

Meteorological Office, Toronto,  
Jan. 21st, 1914.







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